

APPROVED RESOURCE MANAGEMENT PLAN

for

PUBLIC LANDS ADMINISTERED

by the

**BUREAU OF LAND MANAGEMENT
BUFFALO FIELD OFFICE**

Prepared by

**United States Department of the Interior
Bureau of Land Management
Buffalo Field Office**

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MISSION STATEMENT

It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

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BACKGROUND AND PURPOSE

This document is a result of the review and evaluation of the 1985 Buffalo resource management plan (RMP) and subsequent analyses and changes in policy. RMPs are written to guide the management of Bureau of Land Management (BLM)-administered public land and mineral resources.

This document lays out the existing management direction for the land and mineral resources administered in Campbell, Johnson, and Sheridan counties. This direction is derived from the 1985 Buffalo RMP, as amended, and as modified by subsequent changes in BLM policy.

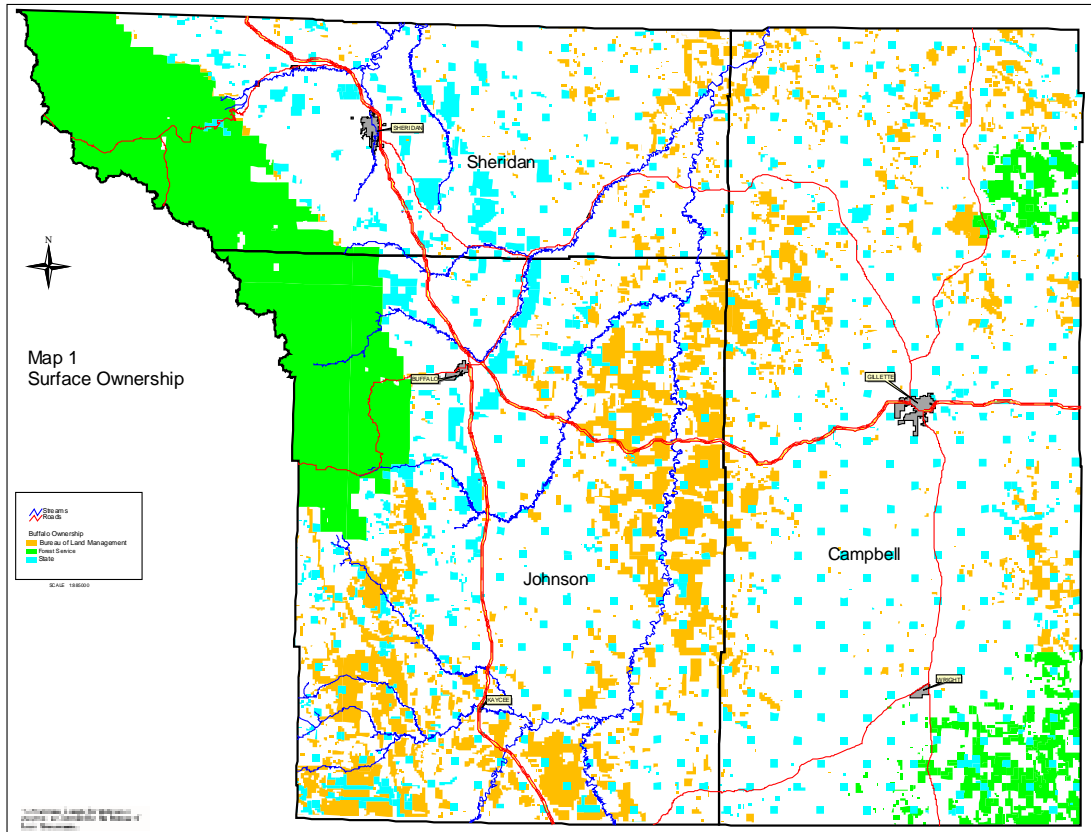
The Wyoming BLM has developed "mitigation guidelines" for use in determining the types and levels of mitigation needed to protect important resources from actions involving surface-disturbing and other human-presence disturbance or disruptive activities. These guidelines are used in the RMP process for (1) developing the alternatives for the EIS and analyzing the impacts of the alternatives; (2) as part of the planning criteria for developing the alternatives and for determining mitigation requirements to be included in the approved RMP; and, (3) in planning and developing project proposals. The "Wyoming BLM Mitigation Guidelines for Surface-disturbing and Disruptive Activities" are detailed in appendix A, which also contains further information on how they are used in the RMP process.

PROFILE OF THE AREA ADMINISTERED BY THE BUFFALO FIELD OFFICE

BLM in Wyoming removed its mid layer of management October 1, 1998, and renamed its districts and resource areas as field offices. The four district and ten resource area offices into ten field offices. The district and resource area offices in Worland, Rock Springs, Rawlins and Casper were consolidated into single field offices with a single manager. BLM resource area offices in Newcastle, Buffalo, Cody, Lander, Pinedale and Kemmerer were renamed as field offices.

The area administered by our Buffalo Field Office consists of all the public lands and minerals in Campbell, Johnson, and Sheridan counties in north central Wyoming (map 1). These three counties are part of the Northern Great Plains. The area is mineral-rich with world-class coal deposits in the Powder River Basin. These deposits produce 78% of the nation's federal coal. About ¼ of the state's crude oil production also comes from the Buffalo field area.

There are varied and overlapping land surface and mineral ownerships within this three-county area. As an example, Campbell County has more private surface than any other county in Wyoming, but the majority of the mineral estate is federal. Coal is about 90%



and oil and gas is about 50%. Therefore, the administrative jurisdictions for land use planning and for managing the land surface and minerals are also varied and overlapping.

This area is also one of the most populous areas in Wyoming with urban areas in Sheridan, Gillette, and near-by Casper. The combination of population density and a limited public land base results in a higher demand for recreation on public lands. Approximately half of these lands are either difficult to access or inaccessible without crossing private land. Added to this demand is heavy pressure from recreationists. We are concerned with meeting this recreational demand without violating the property rights of private landowners. This issue is intensified because major tourism routes cross this area connecting the Black Hills and Yellowstone National Park.

Table 1 shows the acreage for the various ownerships and management responsibilities in the area.

PLANNING AND MANAGEMENT DECISIONS (by resource)

The following RMP decisions are presented in alphabetical order, based on the specific resource. Decisions and policy are shown in **bold** text.

AIR QUALITY MANAGEMENT DECISIONS

Management objective: Maintain or enhance air quality, protect public health and safety and sensitive natural resources, and minimize emissions that could result in acid rain, violations of air quality standards, or reduced visibility.

Management decisions: Any BLM-initiated actions or authorization that result in air quality or visibility deterioration are conditioned to avoid violating Wyoming and national air quality standards. This is done by coordinating BLM-managed activities with the Wyoming Department of Environmental Quality (WDEQ) and the U.S. Environmental Protection Agency (EPA).

Dust control measures are required to be taken to increase visibility and reduce particulate impacts for all construction and other surface-disturbing activities. Air quality standards are monitored by the WDEQ.

Air quality permits are obtained from the WDEQ before any prescribed fires are set on public land. Smoke and pollution are minimized as described in the BLM smoke management guidebook.

TABLE 1
LAND AND MINERAL OWNERSHIP AND ADMINISTRATIVE JURISDICTIONS
WITHIN CAMPBELL, JOHNSON, AND SHERIDAN COUNTIES

Areas the Buffalo Plan Decisions Will Cover		Approximate Acreage
A.	Areas where the land surface and the underlying mineral estate are both federally owned and are both administered by the BLM. ^{a/}	796,400
B.	Areas where the land surface is federally owned and administered by the BLM and the underlying mineral estate is owned and administered by private individuals, the state of Wyoming, or local governments. ^{b/}	40
C.	Areas where the mineral estate is federally owned and administered by the BLM and the land surface is owned and administered by private individuals, the state of Wyoming, or local governments. ^{c/}	3,934,700
Total BLM-administered federal land surface and mineral estate to be covered by plan decisions (A + B + C)		4,731,140
D.	Areas where the federal land surface is administered by another federal agency.	885,700
E.	Areas where the land surface and underlying minerals are both owned by private individuals, the state of Wyoming, or local governments.	1,722,100
Total surface acres of all lands administered by the Buffalo Field Office (A + B + C + D + E)		7,338,940
<p>^{a/}These BLM-administered federal lands will be called "public lands." According to FLPMA, section 103(3), "The term 'public lands' means any land and interest in land owned by the United States within the several States and administered by the Secretary of the Interior through the Bureau of Land Management, without regard to how the United States acquired ownership, except--(1) lands located on the Outer Continental Shelf; and (2) lands held for the benefit of Indians, Aleuts, and Eskimos."</p> <p>^{b/}The surface of these lands will also be described as "public lands" although the BLM will make no planning or management decisions for the minerals.</p> <p>^{c/}The interest in these lands administered by BLM consists of the minerals. These will not be called "public lands." BLM's interest will be described as "BLM-administered minerals" or BLM-administered mineral estate."</p>		

CULTURAL RESOURCES MANAGEMENT DECISIONS

Management objective: Protect, preserve, interpret, and manage significant cultural resources for their informational, educational, scientific, and recreational values.

Management decisions: Using the land for scientific purposes such as archeological collections is authorized through a permit system. Since 1985, 53 permits have been issued, and it is expected that about 12 more would be issued between 1991 and 2005.

Site-specific inventories for cultural resources are required before any surface-disturbing activities can begin. Adverse effects on significant resources are mitigated, or the resources themselves are avoided. Sites listed on, or eligible for, the National Register of Historic Places (NRHP) are protected. Since 1985, about 1,500 new sites have been located in the resource area, of which 5% are eligible for nomination to the NRHP. About 150 new sites a year are expected to be recorded through 2005, with the same percentage eligible for listing on the NRHP.

Rock art, as well as prehistoric and historic archaeological sites and districts associated with specific time periods or cultures, are managed for scientific, public, and sociocultural use. General areas are managed for research emphasizing interpretation of the environments in which prehistoric man lived. Specific sites or areas are preserved for future study and use. Cultural resource interpretive sites, such as rock art and historic trails, are developed or will be developed, providing such public benefits as scenic overlooks, signs, and walking trails.

FIRE MANAGEMENT DECISIONS

Management objectives: 1) To restore the natural role of fire in the ecosystem; 2) to cost effectively protect life, property, and resource values from wildfire; and 3) to use prescribed fire to achieve multiple use management goals.

Management decisions: Unwanted wildland fires will be suppressed, the use of some types of suppression equipment will be restricted in some areas, and fire and suppression damage will be rehabilitated. Table 2 gives the number of fires and acres burned since 1985. The figures in this table do not include assist fires or some false alarms. No change in the number of fires in the next ten years is expected. However, the number of acres burned is expected to increase to an annual average of 1,000 acres due to increasing fuel loading, a change in management strategy using an "appropriate management response" (see "Glossary") as wildland fires occur, and probable implementation of prescribed natural fire.

Wildfires will be managed in all areas of the resource area. Priority will be given to suppressing fires in or threatening higher value resources (commercial timber areas, WSAs, Middle Fork Powder River management area, developed recreation sites, and areas of wildland/urban interface) and keeping fires from spreading onto private, state, or other federal lands. Protecting human life will be the highest priority. BLM personnel and equipment are used to suppress fires directly, or in conjunction with, county, state, or other federal resources via cooperative agreements. Suppression actions are immediate in order to

contain fires within the smallest acreage possible consistent with resource values, environmental damage, and safety of the public and firefighters. The number of fires and the size of fires varies from year to year and primarily depends on weather factors. Long periods of drought and strong winds are particular reasons for numerous and large fires. Most wildfires are caused by lightning with occasional fires resulting from human-related sources (campfires or fireworks). Fire prevention and education programs are conducted to help reduce the number of human-caused fires.

Heavy equipment (dozers) will be restricted from being used for wildfire suppression in the WSAs, the Middle Fork Powder River management area, and areas of known cultural values (for example, ruts of the Bozeman Trail). Whenever heavy equipment is used (or planned to be used) an archeologist is consulted to advise firefighters of cultural values which could be damaged or destroyed.

TABLE 2
NUMBER OF FIRES AND ACRES BURNED
1985-1994

Year	Number of Fires	Acreage Burned
1985	15	355.4
1986	0	0.0
1987	6	5.1
1988	22	794.3
1989	4	3.5
1990	2	3.0
1991	10	2,189.5
1992	9	53.0
1993	3	3.0
1994	8	616.5
Total	79	4,023.3
Average	7.9	402.3

Aerial retardant use will be restricted to keep retardant out of water sources. Specific restrictions on retardant use apply to the WSAs, and helispot construction is also prohibited in the WSAs.

Firelines which are constructed by heavy equipment, or on steep slopes, will be rehabilitated to prevent or control erosion. Rehabilitation includes, but is not limited to, water barring and reseeding. Fireline restoration is initiated as part of the suppression effort in order to reduce scarring from any heavy equipment used to prevent or control soil erosion.

Burned areas are inspected to determine if the whole area needs to be reseeded, replanted, or rested from grazing to allow vegetative recovery. These actions may occur soon after the fire or at a later time depending on the success of natural recovery.

Prescribed burns will be used as a tool to reach management objectives planned for areas in conjunction with such things as range and wildlife habitat management projects.

FOREST RESOURCES MANAGEMENT DECISIONS

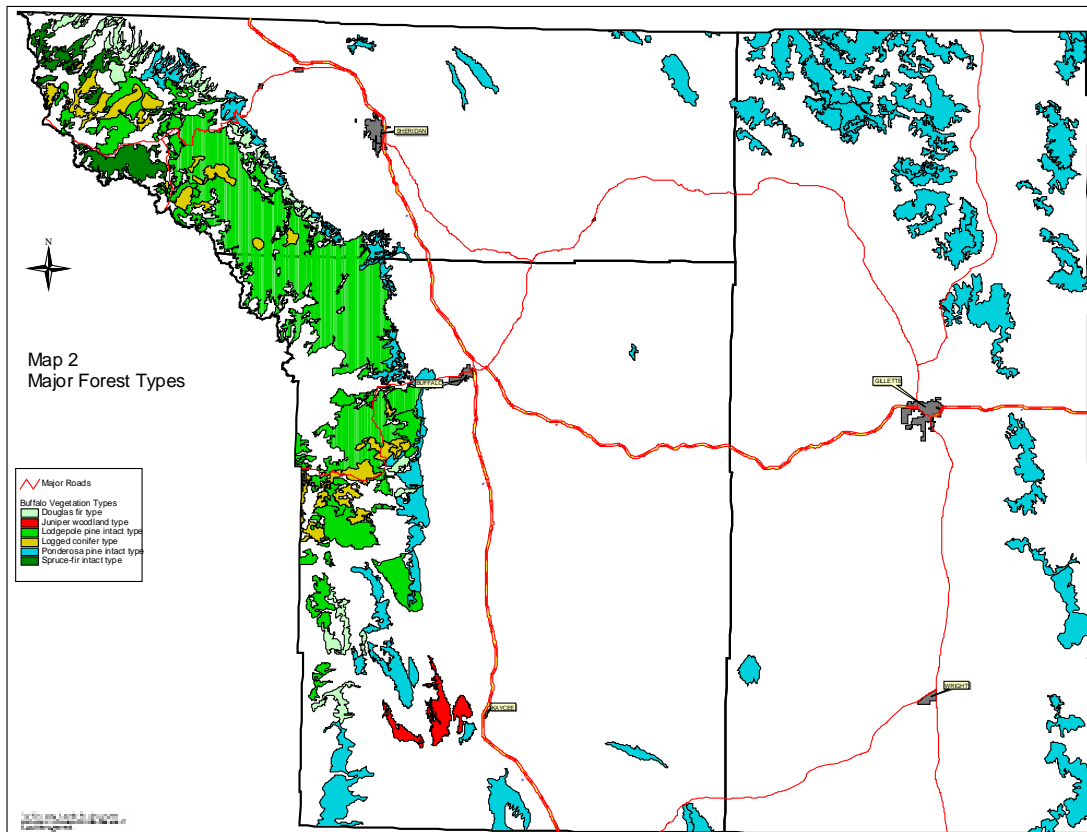
Timber Harvesting

Management objective: Maintain and enhance the health, productivity, and biological diversity of forest and woodland ecosystems. Provide a balance of natural resource benefits and uses, including opportunities for commercial forest production.

Management decisions: Timber harvesting is allowed at 10-year harvest levels not to exceed 10 million board feet (mmbf). Forest products are sold by permit as requested. Easements are acquired across private and state land where access is needed for timber harvest and other forest management purposes. Commercial harvesting of forest products is from the types of timber shown on map 2. Nine mmbf could be sawtimber and one mmbf could be post, poles, or other nonsawtimber products. There are 11 priority timber harvest areas; however, sawtimber harvest could occur in other areas if biological or economical conditions warrant (map 3). Up to one mmbf of forest products could be sold over a ten-year period from noncommercial ponderosa pine, limber pine, and juniper woodland areas to meet public demand for posts, poles, firewood, and specialty wood consistent with wildlife habitat requirements

Because of increased environmental concerns, the inability to purchase easements or gain permission from landowners to access many commercial harvest areas on BLM-administered public land, and other resource concerns such as elk hiding cover, annual sawtimber harvest has only averaged 400 thousand board feet (mbf). Sawtimber harvest is estimated to decline to an annual harvest rate of 130 mbf from 1991 to 2005. Over this period, about 200 acres would be affected by timber harvesting. About 2 miles of roads would be built to meet sawtimber harvest needs while about 2 miles of no longer needed timber roads would be reclaimed. Timbering activities on private, state, and Forest Service (FS) lands may affect these estimates.

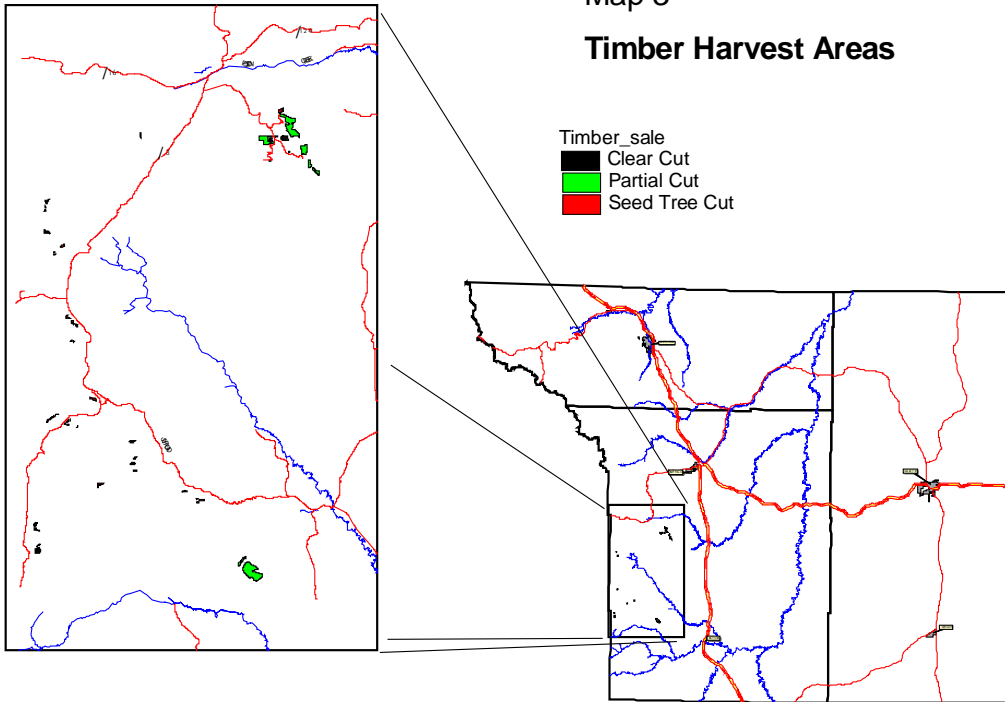
Individual clearcuts are not allowed to exceed 20 acres. Harvested areas are planted if they have not regenerated within 5 years. Regeneration areas are often fenced to prevent livestock from damaging seedlings. Timber harvests are prohibited within 200 feet of surface water. Timber harvesting is limited to commercial forestlands with slopes less than 45% (also see appendix B). Silvicultural practices and timber harvesting are



Map 3

Timber Harvest Areas

Timber_sale
Clear Cut
Partial Cut
Seed Tree Cut



This map was created by the Washington Department of Ecology and is not intended to be used for any other purpose.

prescribed for areas where forest health and enhancement of species, stand age, and past stocking levels are primary objectives. A variety of forest silvicultural and cutting methods such as clearcutting, shelterwood, individual tree selection, seed tree regeneration treatments, and commercial and noncommercial tree thinnings are used. Overstocked regenerated harvest sites and naturally occurring overstocked younger-aged forest stands are thinned to enhance growing conditions.

GEOLOGY AND MINERAL RESOURCES MANAGEMENT DECISIONS

Management objective: Maintain or enhance opportunities for mineral exploration and development while maintaining other resource values.

Management decisions: BLM will provide for the efficient use of the mineral resources.

This section discusses the BLM-administered mineral resource uses that are provided, where these uses can or cannot occur, and the authorization process. Mineral uses are discussed separately because a great deal of the public mineral resources are "split estate"; that is, where the surface ownership is not BLM, but all or a portion of the mineral rights are retained by the federal government.

There are two general categories of split-estate lands. One category is those lands where the land surface is federally-owned and administered by BLM, while some or all of the minerals under them are owned and administered by either private parties or by local or state governments. The other category is those lands where the land surface is owned and administered by private parties or by local or state governments, and some or all of the minerals under them are federally owned and administered by BLM. "Some or all of the minerals" means there may also be more than one owner among the different types of mineral estates. For example, in some lands, the federal government may own only the oil and gas or only the coal, or both, while the other mineral resources in those same lands (locatable, salable, and other leasable minerals) are owned by the state or by private parties.

In either category, the mineral owners are entitled access to their minerals to explore for and develop them and to prudently use an area of the land surface and surface resources that are directly necessary to those exploration and development activities.

Mineral owners are required to compensate for damage to surface owner improvements, to avoid or mitigate other affects of their activities, and to reclaim the surface.

BLM has no jurisdiction or statutory authority to make land use planning or resource management decisions for the use of any land surface that is owned by private parties or by local or state governments.

BLM has the authority and the responsibility to plan for and manage the federal minerals under these split-estate lands. Planning and managing the federal mineral estate includes:

- making planning and management decisions that salable and leasable federal minerals will or will not be sold or leased, and implementing those decisions;
- deciding whether or not mining claims may be filed for locatable federal minerals and implementing those decisions; and,
- deciding any required conditional provisions, mitigation measures, and land surface reclamation requirements that would be included in any federal minerals sales or leases (to include use authorizations) that the BLM may issue, related to exploration and development of the federal minerals in these lands, and implementing those decisions.

Such conditions, mitigation measures, and reclamation requirements are not requirements that we place on the land surface or the surface owners. Rather, these are standard requirements attached to any use authorizations related to exploring and developing the federal minerals. These requirements are a result of both federal and state laws enacted in the interest of protecting the general environment. They also protect rights and properties of the surface owners from unnecessary and undue degradation and damage that may be caused by any activities related to "federal actions" that we would take or authorize, such as selling, leasing, exploring for and developing the federal minerals. BLM personnel work with both the developers of the federal minerals and the surface landowners to reach mutually acceptable surface disturbance conditions, mitigation measures, and reclamation requirements. (There are some instances where the surface is federally administered, and the minerals are in private ownership.) On split-estate lands and on federal lands administered by other federal agencies, the surface owner or other federal agency controls, plans for, and manages the surface uses. However, BLM coordinates with them in planning and managing the leasing and development of federally owned minerals. Use authorizations may be conditional on maintaining the sensitive or unique resource values identified under the "Sensitive or Unique Resources" section. Also see appendix B.

Oil and Gas

Oil and gas leases are sold by competitive bid; lessees normally pay an annual rental of \$1.50 to \$2.00 per acre, but at times pay much more, and a royalty rate of 12½%. Oil and gas drilling and production is authorized via approval of an application for permit to drill (APD) once the mineral estate is leased. Basically, an APD is an approval to drill a well and produce oil and gas from the federal lease. We authorize geophysical exploration by processing a notice of intent. This is a notice that an oil and gas operator intends to explore for oil and gas in a specific area using seismic or other geophysical methods. Coal bed methane development is authorized by the same process as oil and gas. There are approximately 4.66 million acres of BLM-administered federal oil and gas mineral estate available for leasing, exploration, and development in the resource area.

Management decisions: Continue to lease and allow development of federal oil and gas in the Buffalo Field Office Area.

Continuation of leasing and development of Federal oil and gas reserves in the Buffalo Area is vital to the local and regional economy. The environment will be adequately protected by application of the BLM's standard stipulations and by case-by-case application of other mitigation of surface disturbance. These protective measures have been analyzed in numerous EAs and EISs for both conventional oil and gas and coal bed methane development.

Conventional oil and gas development has proceeded at a much slower rate than was predicted in the 1985 RMP EIS. That document predicted and analyzed the impacts of drilling 517 wells per year. Actual data shows that the Wyoming State Oil and Gas Conservation Commission approved an average of 190 wells per year and approximately 152 of these were drilled per year (appendix C) .

Shallow wells are an increasing part of overall drilling in the resource area. Most are drilled for coal-sourced natural gas in eastern Campbell County. Few shallow wells were drilled before 1987. "Appendix C: Reasonably Foreseeable Development Scenario for Oil and Gas Development in the Buffalo Field Office Area, Wyoming" discusses past and future oil and gas activity in the Buffalo Field Office Area.

Until Congress decides to designate or not designate the three WSAs in the resource area--Gardner Mountain (about 6,400 acres), North Fork (10,000 acres), and Fortification Creek (12,400 acres) as wilderness, about 28,800 acres are not available for oil and gas leasing. If Congress decides not to designate them as wilderness, they would be available for oil and gas leasing and development.

About 1,300 acres of federal oil and gas estate are not available for leasing because the acreage is within a city or town, and 44,000 acres are unavailable due to coal mining activities. Any oil and gas lease offer tracts that conflict with coal mining are pulled out of the offer. In the Powder River Basin, oil and gas and coal frequently occur in the same place. The public interest is best served by optimizing the development of both resources in an environmentally sound manner. In order to do this, the list of competitive oil and gas lease offers is reviewed against existing coal leases that have approved mining and reclamation plans. If a company expresses interest for a specific tract that has been pulled, we consult with the coal operator to determine if oil and gas drilling and production could be conducted without interfering with coal operations. Where possible, oil and gas leases are issued with specific conditions to help prevent a development conflict with coal. In such cases the following stipulation is attached to the lease.

Surface occupancy or use will be restricted or prohibited on this lease (oil and gas lease) owing to conflicts with ongoing coal activities. Prior to surface use, an acceptable plan of mitigation of anticipated impacts must be negotiated between the oil and gas and the coal lessees and approved by the authorized officer. This stipulation may affect development, operations and maintenance of facilities.

About 25,000 acres of federal oil and gas estate is available for leasing with the condition that no oil and gas activity occur on the surface (no surface occupancy--NSO) due to federal and state highways. This means that these leases would either be directionally drilled or developed in conjunction with adjoining leases. Only 2½% of the total federal minerals in the Buffalo Resource Area are not available for lease or development.

Coal

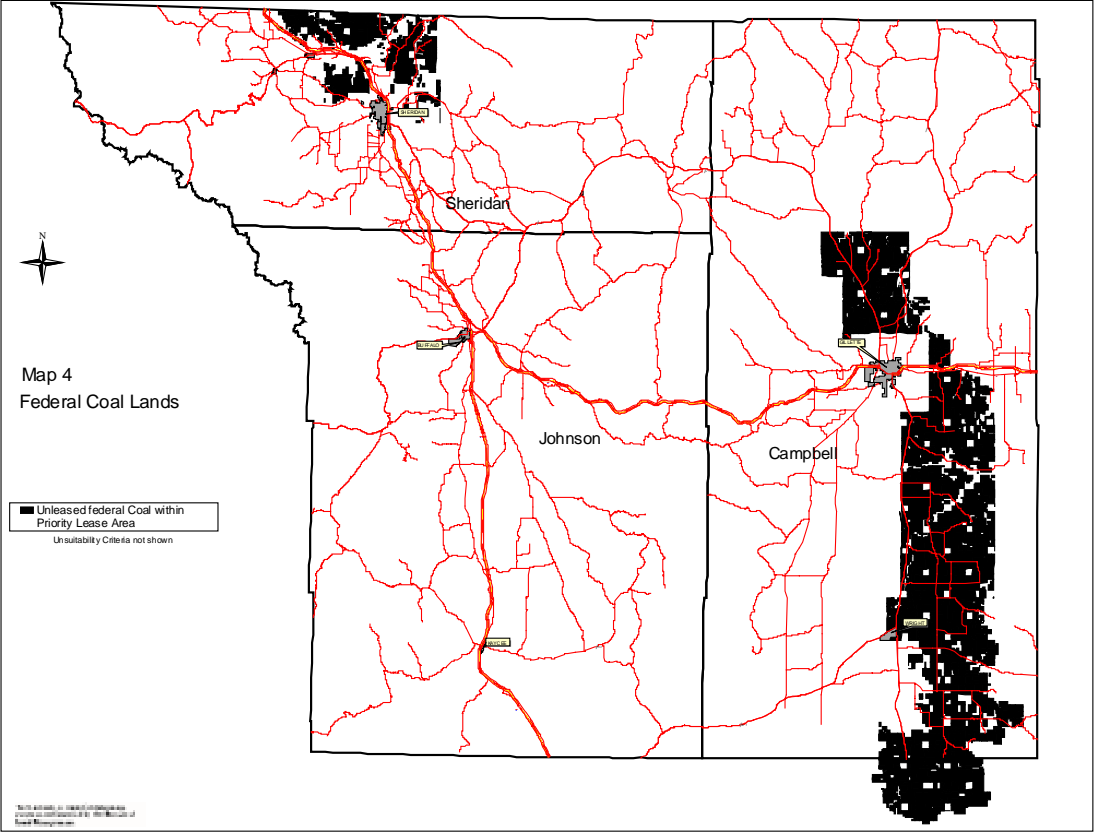
Management decisions: All federal coal lands (federal mineral estate for coal retained by the federal government) are open to study and exploration. Under the federal coal leasing program, federal coal lands are screened for coal potential, unsuitability, and multiple use constraints (appendix D). **Areas that pass these screens are available for further consideration for competitive coal leasing.** In the resource area 494,000 acres in eastern and southeastern Campbell County and 73,000 acres in north central Sheridan County are available for coal leasing (map 4). The screening process identified buffer areas around existing communities. The Gillette buffer area (about 78,000 acres) is open for lease by application, emergency leasing, exchanges, and lease modifications. About 31,000 acres within the Buffalo buffer zone, 33,000 acres within the Sheridan buffer zone, and 4,000 acres within the Wright buffer zone are closed to further consideration for coal leasing and development. The results of the coal screening analysis is presented in the "Energy Resources" booklet.

Federal coal lands available for consideration for competitive coal leasing are open for lease by application (LBA), lease modifications, emergency leases, and exchanges. This includes uncommitted coal land determined to be acceptable for coal development and leasing consideration within the priority areas for competitive leasing. Coal lands outside the priority leasing areas which are applied for must pass the coal screening process before they will be considered for leasing.

All federal coal lands that are open to further consideration for competitive leasing and development are subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining could occur without having significant long-term impacts on wildlife, alluvial valley floors, threatened and endangered plant and animal species, and existing transportation systems. There are currently some areas unsuitable for leasing because of wildlife concerns, alluvial valley floors which are significant to farming, and rights-of-way.

Coal leasing in producing oil and gas fields would be deferred unless or until coal development would not interfere with the economic recovery of the oil and gas resources. This would be determined on a case-by-case basis.

Any exploration drilling conducted to gather data concerning unleased federal coal, strata above the coal, hydrology of the coal, and surrounding strata requires an exploration license. Drilling water monitor wells in areas of unleased federal coal



requires an incidental exploration license.

The right to mine federal coal is conveyed by a coal lease. Before a new federal coal lease can be mined, the federal coal lessee must obtain approval of a detailed mining and reclamation plan from the state of Wyoming and the Secretary of the Interior. Federal coal leases are sold competitively through a public sealed-bid process. A federal coal lease is issued to the bidder offering the highest bonus payment or bid at each sale if a federal sale panel determines that the bonus bid meets or exceeds the fair market value of the coal as determined by BLM. A bonus bid is a payment made to acquire a federal coal lease. Coal lessees also pay an annual rental based on acreage leased as well as a 12.5% royalty rate on the coal when it is produced. In Fiscal Year 1999, the federal government collected approximately 137 million dollars in royalties from federal coal produced in the planning area (Campbell County, Wyoming). Federal royalty and bonus bid payments are divided equally with the state.

Since 1990, approximately 2.365 billion tons of federal coal have been leased and bonus bid payments have totaled 521.2 million dollars in the Wyoming Powder River Basin. Approximately 98% of this newly leased coal is located in the planning area. An additional 2.2 billion tons have been applied for. In 1999, there were 13 active mines operating on around 96,100 acres of leased federal coal in the planning area. Annual total production from the mines in Campbell County (of which 95% is federal coal) has increased from 116 million tons in 1985 to over 294 million tons in 1999. Since 1995, the annual increase in production has ranged from 1.1% to 11.9% over the previous year. Production is expected to increase an average of 5% annually through 2005. Since 1990, mining activities have disturbed an average of 2,600 acres per year, and an average of 950 acres per year have been permanently reseeded.

From 1985 to 1989 the Powder River coal region was a designated federal coal production region where any leasing (other than emergency leasing) was accomplished under the rules and procedures for regional lease sales. Regional lease sales offer many parcels at one sale on a competitive basis. No regional sales were conducted because there was not enough interest from industry. In 1989, the Powder River coal region was decertified as a coal production region. Since 1989, individual LBA requests are accepted and acted on case by case. An LBA sale involves one parcel at a sale on a competitive basis. Since 1990 nine LBAs have been sold and one exchange has been completed. Six LBAs are pending and one exchange is pending.

Locatable Minerals (bentonite, uranium, and others)

Management decisions: Unless formally withdrawn from mineral location, all lands in the resource area, including federally administered surface/minerals and split estate, are open to exploration, location, and development of locatable minerals on valid mining claims. In order to explore and develop locatable minerals (excluding casual use), a notice of intent or a plan of operation is required depending on the amount of disturbance and type of activity. All locatable minerals actions are reviewed to ensure compliance with the bonding policy for surface-disturbing activities.

The Amsden Creek winter game range (480 acres) and Middle Fork Canyon (about 11,000 acres) have been withdrawn from mineral location. Locatable mineral activities are restricted in Fortification Creek, Gardener Mountain, and North Fork WSAs (about 28,931 acres).

From 1985 through 1994, 607 mining claims have been filed and 740 claims closed in the Buffalo Area. These claims were primarily for bentonite and uranium. Approximately 1,279,200 tons of bentonite and 1,018,300 pounds of uranium have been produced in the area from 1990 through 1994. Production rates will probably increase slightly in the short term; however, long-term production will depend entirely on market demand. BLM's only involvement with unpatented mining claims is to ensure that there is no undue or unnecessary surface degradation on BLM-administered public lands. About 5 acres of federally administered surface acres are disturbed annually, and it is projected to remain about the same through 2005. Appendix E contains a reasonable foreseeable development scenario for uranium in the Buffalo Field Office area.

Since 1985, nine mining claims have been patented in the BRA totalling approximately 690 acres and 328,300 tons of bentonite. Once the claims are patented, BLM's management of the land ends unless other subsurface minerals not included in the patent are retained (oil, gas, or coal). In the case of these nine claims, leasable mineral rights (oil and gas) were retained.

Salable Minerals (sand, gravel, scoria)

Management decisions: Mineral materials are sold by volume at appraised value to commercial users; other governmental agencies have free use. **The majority of lands in the resource area, including federally administered surface/minerals and split estate, are available for mineral material exploration and development. Mineral materials activities are prohibited in the Fortification Creek, Gardener Mountain, and North Fork WSAs (about 28,931 acres).**

Mineral material production has provided 3,857,500 cubic yards of sand, gravel, and scoria from 47 sales contracts and 26 free-use permits from October 1985 through September 1992. The area has produced a total of about 4,375,600 cubic yards between 1991 and 1994, of which 49% was from federal minerals. Annual production and surface disturbance is expected to remain about the same through 2005. About 15 acres, most of which is on split estate private surface ownership, would be disturbed and reclaimed each year.

Other Minerals

Management decisions: Geothermal resources are available for leasing in areas that are open to oil and gas leasing. Areas closed to oil and gas leasing are also closed to geothermal leasing. We consider leasing other minerals (phosphates or sodium) on a case-by-case basis.

HAZARDOUS MATERIALS MANAGEMENT DECISIONS

Management objectives: Protect public and environmental health and safety on BLM-administered public lands, comply with applicable federal and state laws, prevent waste contamination due to any BLM-authorized actions, minimize federal exposure to the liabilities associated with waste management on public lands, and integrate hazardous materials and waste management policies and controls into all BLM programs.

Management decisions: **For any authorized activities involving hazardous materials or their use, precautions will be required to be taken to guard against releases into the environment.** If a hazardous material is released on the public land, appropriate warnings are provided to potentially affected communities and individuals. Precautions are then taken against public exposure to contaminated areas. Public lands contaminated with hazardous wastes are reported, secured, and cleaned up according to federal and state laws, regulations, and contingency plans (including the federal Comprehensive Environmental Response, Compensation, and Liability Act). **Parties responsible for contamination will be liable for cleanup and resource damage costs, as prescribed by law.**

LANDS AND REALTY MANAGEMENT DECISIONS

Management objectives: Avoid the potential of inadvertent trespass by people accessing the public lands, improve access and manageability of the public lands.

Current policy is to sell lands in unique circumstances when the public can be benefited. Land exchanges are more beneficial to the public and are preferred over land sales. Priority is given to those lands that can provide access to large blocks of public land or to public land with unique resources. Lands with water are also desirable. NonBLM lands near blocked BLM-administered public land in the South Big Horns or lands with high scenic value are considered more desirable than nonBLM land near blocked BLM-administered lands without timber or scenery. Land with valuable wildlife habitat is also important if it is adjoined by blocks of public land. Blocked land and access is considered desirable if accessible to communities such as Gillette. The blocked BLM-administered public land may be located in another resource area or district. For more information see appendix F.

Rights-of-way (ROW)

Management objective: Support the multiple-use management goals of the various BLM resource programs; respond to public requests for land use authorizations, sales, and exchanges; and, acquire access to serve administrative and public needs.

Management decisions: Long-term occupancy of the public lands for roads, power lines, pipelines, communication sites, and irrigation ditches is authorized by granting a ROW. ROWs are to be removed and reclaimed upon termination of the grant. Right-of-way applicants are required to document the use or transportation of hazardous materials and toxic substances within the right-of-way. Since 1985, 850 rights-of-way have been issued in the planning area. Less than 30% of these ROWs require an annual rental fee.

Transmission lines and transportation facilities are located to the extent feasible within identified corridor areas. Communication sites are not authorized on North Middle Butte unless it becomes absolutely necessary to use that butte for the line of-sight needs (such as microwave transmission). The remainder of the planning area is open for rights-of-way development. Corridors designated in the 1985 RMP have not worked because of the scattered public land surface. In the Pumpkin Buttes area, communication sites and utilities are allowed only on the South Middle Butte (250 acres) until that butte has been fully used as a communication site. Proposals are addressed on an individual basis with an emphasis on avoiding conflict or sensitive areas.

From 1985 to 1994, about 80 miles of roads, 60 miles of pipelines, 150 miles of power lines, and 5 communications sites have been built in the area annually. About 20% of this activity has occurred on public land surface. This level of activity is expected to remain constant from 1991 through 2005.

Public lands having agricultural potential and water are considered for disposal by sale, exchange, or desert land entry. Agricultural trespass on public land is usually solved through negotiation; however, land sales or leases can also resolve agricultural trespass in some cases. Between 1991 and 2005, we estimate agricultural trespass to occur on about 600 acres in the resource area.

Recreation and Public Purpose (R&PP) Use

Management objective: Provide outdoor recreational opportunities on BLM-administered public land while providing for resource protection, visitor services, and the health and safety of public land visitors.

Management decisions: R&PP applications will be considered for recreation purposes. **Uses that are not compatible with each R&PP will not be allowed.** Since 1985, R&PPs have been granted for the Buffalo Rifle Range, Sheridan Recreation Complex, and Buffalo Green Belt. Since all existing R&PPs have been patented (deeded to the applicant), the surface owner has control over the activities occurring in the area in conformance with the R&PP patent. Between now and 2005 three R&PP applications are anticipated.

Withdrawals

Management objective: Support management of other resource programs and other Federal agencies.

Management decisions: Withdrawals for surface and/or minerals will be considered on a case-by-case basis. Withdrawals are used to segregate or reserve lands for a specific purpose or use. A withdrawal can also transfer jurisdiction of a tract of land under our jurisdiction to another federal agency. Withdrawals within the planning area also serve to segregate the public lands from operation of the public land laws including the mining laws but not the mineral leasing laws. Land withdrawals are extremely important in supporting other resource programs.

There are several withdrawals in the planning area: stockdrive withdrawals, military withdrawals, public water reserves, Bureau of Reclamation (BOR) withdrawals, wildlife refuge withdrawals, powersite withdrawals, and public housing withdrawals.

The most predominant withdrawals are the stockdrive withdrawals (about 28,700 federal surface acres). These withdrawals were reserved under secretarial orders and set aside for livestock trailing. The largest of these is the Mayoworth Stockdrive located west of Mayoworth, Wyoming.

Military withdrawals in the planning area are Fort MacKenzie (military training area) and the Veterans Hospital (about 4,000 acres), located west of Sheridan, Wyoming. We have no administrative authority for surface uses on these withdrawal areas.

The BOR has several powersite withdrawals and public water reserves (about 13,000 acres) that were set aside for various uses including reservoir sites, dam sites, flood control sites, and power generation sites. They are scattered over the resource area with the majority in northeastern Sheridan County and northwestern Campbell County along the Powder River. The BOR has recommended that about 11,000 acres of these withdrawals be relinquished. We have field-examined them, and they were recommended for revocation in 1982. As of yet, no formal action has been taken to revoke these withdrawals. These are currently on file in the Wyoming BLM state office pending future action.

The Amsden Creek Winter Game Range located approximately 3 miles west of Dayton, Wyoming is a wildlife refuge area withdrawal (about 3,500 acres). This withdrawal is managed as a wildlife protective area by the WGFD through a cooperative agreement.

The Middle Fork recreational withdrawal (about 11,000 acres) is located west of Kaycee, Wyoming. It protects the Middle Fork area from mineral entry because this area has unique visual qualities, wildlife habitat, fisheries, and general outdoor recreational qualities.

The smallest withdrawal in the area is the public housing withdrawal in the middle of Buffalo, Wyoming. This area was withdrawn so that the Buffalo Housing Authority could use the five-acre tract as public housing for senior citizens.

Disposal Areas

Approximately 138,700 acres of public lands that are more difficult or less economic to manage than most BLM-administered public lands have priority consideration for exchange, public sale, or transfer of jurisdiction to another agency (map 5). These lands are small, isolated parcels which are less economic to manage than larger blocks of public land and have been identified as being potentially suitable for disposal. Resources such as archeological values, historic values, and wildlife values could cause the lands to be retained. Small parcels of BLM-administered public lands which are part of a large federal grazing allotment are generally efficient to retain and manage (appendix F).

Acquisition Areas

Priority is given to acquiring public land in areas adjacent to major blocks of public land, especially in areas of high recreational potential like the south Big Horn Mountains. The lands that would be acquired by exchange, easement acquisition, or other means are inventoried for hazardous substance and a past history of contamination. **Any lands known to be contaminated with hazardous substances are not acquired** (appendix F).

Exchanges

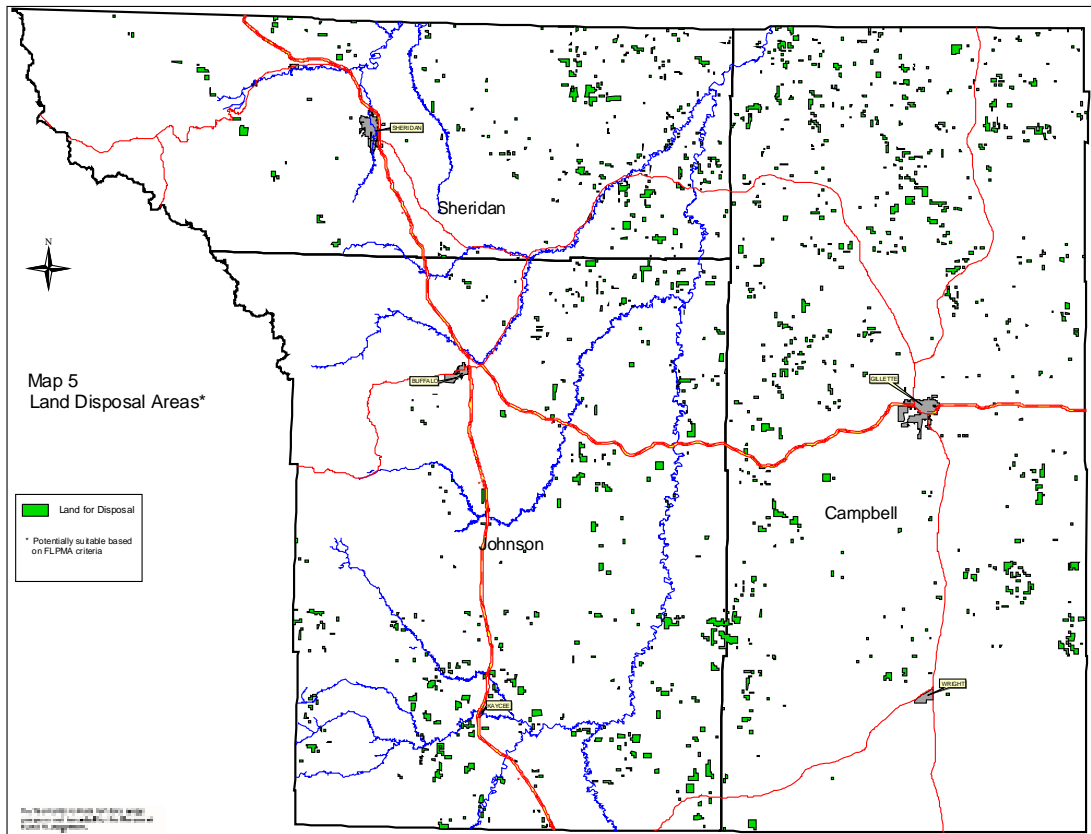
Land tenure adjustments through exchanges serve several purposes. Exchanges help to block up smaller isolated parcels of public land into larger more manageable units. They must benefit the public as well as the private landowner involved. The most beneficial exchanges are those which block up the private lands and the public lands into more manageable units and provide access to larger blocks of public land which were previously inaccessible. Exchanges are used to acquire high resource value lands and to reduce management burdens on other parcels. Exchanges can also be used for the sole purpose of acquiring access.

Easements

Easements that will provide access to better blocks of public lands for recreation and administrative purposes will continued to be pursued. A transportation plan is updated based on opportunities listed in the 1985 RMP. In the past, easements across private and state lands were acquired for forest management purposes; however, only one easement out of the 15 priority areas identified for acquisition in the 1985 RMP has been purchased (Poison Creek).

Easements have been acquired to provide recreational opportunities and to enhance management for interpretive values in the Outlaw Cave, Billy Creek, Petrified Tree, and Poison Creek areas.

LIVESTOCK GRAZING MANAGEMENT DECISIONS



Management objective: Maintain or improve forage production and range condition to provide a sustainable resource base for livestock grazing on the public lands while improving wildlife habitat and watershed.

Management decisions. Livestock grazing is not authorized on about 4,000 acres of public land located in the canyons and slopes of the southern Big Horn Mountains because of the rough terrain and steep slopes. Livestock grazing is allowed on all public lands in the resource area except on about 6,000 acres (1%) where it has been determined to be incompatible with other resource uses or values. Areas closed to livestock grazing due to conflicts with other resource uses include some timber sale areas when these lands are being revegetated following harvests, and public lands within the Taylor, Kerns, and Amsden big game winter ranges. Developed recreation sites such as picnic areas, campgrounds, and the Petrified Tree Environmental Education Area are also closed to livestock grazing.

Livestock grazing use authorized on BLM-administered public lands has averaged 110,000 animal unit months (AUMs) yearly on about 400 grazing allotments and stock driveways. Information on annual grazing use authorizations on allotments and stock driveway use is available through the grazing authorization billing system (GABS) data base. This database is maintained at the Buffalo Field Office. Based on past demand for livestock feed from all landownerships, anticipated feed demand from 1991 to 2005 would be about 2.9 million AUMs annually. Forage produced from the public lands would contribute about 110,000 AUMs (4%) of the feed requirements.

Any permanent increases in the amount of forage produced are considered for wildlife and watershed protection before additional livestock use is authorized. The level of livestock use authorized on the allotments is determined by BLM specialists in consultation with the grazing lessee and other affected interests using inventory and monitoring information. Adjustments of grazing on commercial forestland could be made where productivity or regeneration is impaired. Allocation of increases of available forage is first allocated to wildlife to meet population objectives of the Wyoming Game and Fish Department (WGFD). If not needed for wildlife or watershed protection, the forage would be made available for livestock.

Management actions on grazing allotments are prioritized based on the classification of the allotments into one of three management categories: maintain (M), improve (I), and custodial (C). These categories broadly define our management objectives for the BLM-administered public lands in the allotment. The priority order for management actions on the allotments are "I," "M," and "C." There are 33 "I" category allotments, 75 "M" category allotments, and 313 "C" category allotments in the Buffalo Field Office Area. Slightly over 70% of the public land in the resource area are in the "M" and "I" management categories.

Grazing lessees and other interested parties are consulted and cooperated with to implement

various grazing management practices and other actions including vegetation and land treatments, water developments, and fence building. BLM policy stipulates that priority be given to management actions that are developed through activity plans such as allotment management plans (AMPs) and coordinated resource management plans (CRMPs). From 1985 through 1999, 15 AMPs have been developed and implemented on about 85,000 acres of BLM-administered public land. Activity plans are predicted to continue to be developed on about one "I" category allotment per year from 1991 to 2005. Employees at the Buffalo Field Office evaluated 25 allotments for conformance with the Wyoming rangeland health standards in 1998. Twenty four of the allotments evaluated were determined to be meeting the standards. Twenty acres of one 400-acre stock driveway allotment did not meet one of the range health standards.

According to the Department of the Interior's final rule for grazing administration, effective August 21, 1995, the Wyoming BLM State Director is responsible for the development of standards for healthy rangelands and guidelines for livestock grazing management. These were approved on August 12, 1997, by the Secretary of the Interior (appendix B).

Fences will be constructed to maintain wildlife mobility in important habitat areas. Fences on public land that are hindering natural movement of wildlife will be modified to conform with BLM standards. Where variance from BLM standards are proposed, the wildlife biologist, in consultation with the WGFD, reviews and authorizes the change. Priority is given to fences that are restricting the greater numbers of wildlife in, or near, calving and fawning areas or crucial winter areas. Affected parties are consulted before modifying fences to ensure a mutual understanding of the need for the change and for establishing acceptable fence standards. Since 1985, about 329 miles of new fence have been constructed and about .1 mile modified or reconstructed annually. About 10% of this was on BLM-administered public surface. An average of 33 miles of new fence is expected to be constructed annually through 2005, of which about 10% of this would be on BLM-administered public surface.

Reservoirs, wells, troughs and pipelines will be constructed to provide water in dry areas and to disperse grazing use. The grazing lessee or other cooperator will be required to maintain water in all troughs located on public land during the frost-free period (April through October) for wildlife. The troughs are equipped with small mammal and bird access/escape ramps and with overflow pipes that discharge water at least 50 feet away from the trough. Since 1985 about 10 reservoirs, 15 springs, 70 miles of pipeline, and 40 wells have been constructed annually, of which about 10% was on BLM-administered public lands. An average of about 5 reservoirs, 15 springs, 50 miles of pipeline, and 30 wells are expected to be constructed annually through 2005, of which about 10% of this will be on BLM-administered public surface (appendix B).

OFF-HIGHWAY VEHICLE (OHV) MANAGEMENT DECISIONS

Management objective: Provide outdoor recreational opportunities on BLM-administered public land while providing for resource protection, visitor services, and the health and safety of

public land visitors.

Using motorized off-highway vehicles requires no fee and no permit, but their use is restricted depending on whether the area has been designated closed, limited, or open. Until on-the-ground signing has occurred, OHV use in all areas designated as limited or limited to designated roads and trails will be limited to existing roads and vehicle routes.

ORV travel will be prohibited on wet soils and on slopes greater than 25% if damage to vegetation, soils, or water quality would result. ORV designations have been made for all public lands in the planning area (**table 3**); however, only the Middle Fork recreation area, the Fortification Creek WSA, and the Weston Hills recreation area have been signed.

Signs indicating ORV designations as limited use, open, or closed have been placed over a small portion of the BLM-administered public lands (table 3). The Middle Fork, Fortification Creek, Gardner Mountain, and Weston Hills areas are the only limited ORV use areas that have been signed to reflect the actual designations. **On areas designated as limited to "designated" roads and trails, ORV travel will be restricted to marked roads. Until actual roads and trails are marked on the ground travel will be restricted to existing roads and trails. Over-the-snow vehicles will be subject to the same requirements and limitations as all other vehicles.**

PALEONTOLOGY RESOURCES MANAGEMENT DECISIONS

Management objective: Manage paleontological resources that are part of the BLM-administered public land surface estate for their informational, educational, scientific, public, and recreational uses.

Management decisions: **Using the land for scientific purposes such as paleontological exploration is authorized through a permit system.** Since 1985, 53 permits have been issued, and it is expected that about 12 more would be issued between 1991 and 2005.

Fossils are part of the surface estate. Simply stated, whoever owns the surface owns the fossils.

A paleontological collecting permit is required before collecting any fossil vertebrates, significant fossil invertebrates, and plants on BLM-administered public lands.

Potential effects on paleontological resources on BLM-administered public land will be considered in site-specific environmental analyses before authorizing surface-disturbing activities. Site-specific inventories will be required where significant fossil resources are known or are anticipated to occur on BLM-administered public land.

TABLE 3
OFF-ROAD VEHICLE DESIGNATIONS FOR
CAMPBELL, JOHNSON, AND SHERIDAN COUNTIES

		Acreage	Total Acreage
Open Areas: Vehicle travel is permitted both on and off roads if the vehicle is operated responsibly in a manner unlikely to cause significant undue damage to the environment.	Stock driveway and rests South of I-90 at the junction of the Powder River	16,746 3,640	20,386
Closed Areas: Travel by vehicles, including snowmobiles, is prohibited in these areas.	Middle Fork Canyon 6 miles southwest of Barnum Cantonment Reno 20 miles northwest of Kaycee Dry Creek Petrified Tree EEA 9 miles east of Buffalo	3,038 572 40	3,650
Limited Areas A: Use is limited to roads and vehicle routes in existence as of 1985 (see NOTE below).			566,184
Limited Areas B: Use is limited to designated roads and vehicle routes within these areas. (Until signs are posted, vehicle travel is limited to existing roads and vehicle routes.)	North Fork of the Powder River 10 miles north-west of Mayoworth Gardner Mountain area 10 miles north of Barnum, including the Gardner Mountain WSA Red Wall from near Barnum to the county line Middle Fork Management Area Petrified Forest north Dry Creek Petrified Tree EEA Fortification Creek area, including portions of the Fortification Creek WSA Powder River Breaks 26 miles east of Buffalo; north and south I-90 near Powder River Sections of the Bozeman Trail in central and southern Johnson County Dry Creek area near Rocky Point in northwest Campbell County Weston Hills 29 miles north of Gillette Little Powder River area 18 miles and 43 miles north of Gillette Whitetail area in north-central Campbell County Pumpkins Buttes in southwest Campbell County	16,453 28,832 5,442 30,640 427 41,267 25,827 645 7,080 6,870 3,040 2,880 1,600	170,982
Limited Areas C: Vehicle travel is closed to all motor vehicles including snowmobiles from December 1 to April 15.	North Fork Powder River area 10 miles north-west of Mayoworth, including portions of the North Fork WSA Barnum Mountain 6 miles west of Barnum A portion of the Middlefork Management area 12 miles southwest Barnum Fortification Creek area, including a portion of the WSA	16,432 2,800 6,800 11,614	37,646
Total Campbell, Johnson, and Sheridan Counties			798,848
NOTE: Vehicle travel off of existing vehicle routes is permitted only to accomplish necessary tasks and only if such travel does not result in resource damage . Necessary tasks are defined as work requiring the use of a motor vehicle. Examples of necessary tasks include picking up big game kills, managing livestock, repairing range improvements, and mineral activities where surface disturbance does not total more than five acres as described under 43 CFR 3809. Resource damage is defined as leaving long-term signs of vehicle use (ruts), causing erosion or water pollution, or creating undue degradation of other vegetative or wildlife resources.			

Hobby collection of invertebrate fossils and petrified wood are allowed except in specified areas on BLM-administered public land.

Closing BLM-administered public lands or restricting uses to protect paleontological resources are evaluated case-by-case.

RECREATION RESOURCES MANAGEMENT DECISIONS

Management objective: Provide outdoor recreational opportunities on BLM-administered public land while providing for resource protection, visitor services, and the health and safety of public land visitors.

Management decisions: Casual use of the BLM-administered public land for hiking, bicycling, hunting, fishing, and similar uses are allowed without charge. Camping is limited to 14 days at any one spot. Recreational use in 1990, measured in visitor days, for various activities is shown in table 4. BLM-administered public lands support about 3% of the recreational use in the resource area. The overall demand for recreation in the planning area would increase by about 5% every five years for most recreational activities.

Special recreation permits (SRPs) are issued for commercial competitive and large-scale nonprofit organized recreational events on a case-by-case basis. For commercial operations a fee is charged; for nonprofit endeavors the permit is free.

Between 1985 and 1995, 225 permits were issued for such things as big game outfitting, mountain bike races, and museum fund raisers. In 1990 alone, 30 permits were issued. About 35 permits are projected to be issued annually between 1991 and 2005.

Provide Hunter Information

Management objectives: BLM's goal is to provide services to the visiting public by making the public lands more accessible while sustaining the lands' health for present and future generations and while respecting the property rights of our neighbors. To do this, improvements or activities are identified that can be done as cooperative projects. The projects are evaluated in an EA to identify requirements to protect sensitive or unique resource values.

BLM strives to enhance opportunities for primitive recreation while increasing visitor services in some areas to meet needs for more developed forms of recreation.

BLM personnel have been involved in various activities to provide hunter information since the early 1980s. In cooperation with other agencies such as the WGFD and local chambers of commerce, the information provided has included maps, access policy information, hunting and land regulations, and information about private and BLM-administered public lands.

TABLE 4
RECREATION VISITOR DAYS - 1990
BUFFALO FIELD OFFICE AREA

Type of Visitor Use	Resident Visitors			Nonresident Visitors			Total Visitor Days		
	NonBLM	BLM	Total	NonBLM	BLM	Total	NonBLM	BLM	Total
Consumptive Use									
Antelope	4,503	261	4,764	12,263	837	13,100	16,766	1,098	17,864
Deer	49,195	3,042	52,237	39,980	3,861	43,841	89,175	6,903	96,078
Elk	102,421	2,139	104,560	12,449	272	12,721	114,870	2,411	117,281
Small Game	8,000	200	8,200	400	100	500	8,400	300	8,700
Fishing	300,000	3,000	303,000	75,000	1,000	76,000	375,000	4,000	379,000
Total Consumptive Use	464,119	8,642	472,761	140,092	6,070	146,162	604,211	14,712	618,923
Nonconsumptive Use	578,000	15,440	593,440	652,000	17,400	669,400	1,230,000	32,840	1,262,840
Total Visitor Use	1,042,119	24,082	1,066,201	792,092	23,470	815,562	1,834,211	47,552	1,881,763
Source: WGFD 1990. Estimates by BLM personnel, Buffalo Field Office.									

The hunter patrols and "Operation Respect" stations have helped hunters in the field to identify public land locations and to respect private lands. These services have also provided information on conditions and services available to nonresident hunters with little knowledge of the area.

Between 1989 and 1993, hunting access brochures were mailed out to all nonresident hunters that have visited the resource area. A *Hunter Vista* newsletter is mailed annually to nonresident hunters coming to Johnson County by the *Buffalo Bulletin* and the Buffalo Chamber of Commerce.

South Big Horns Area

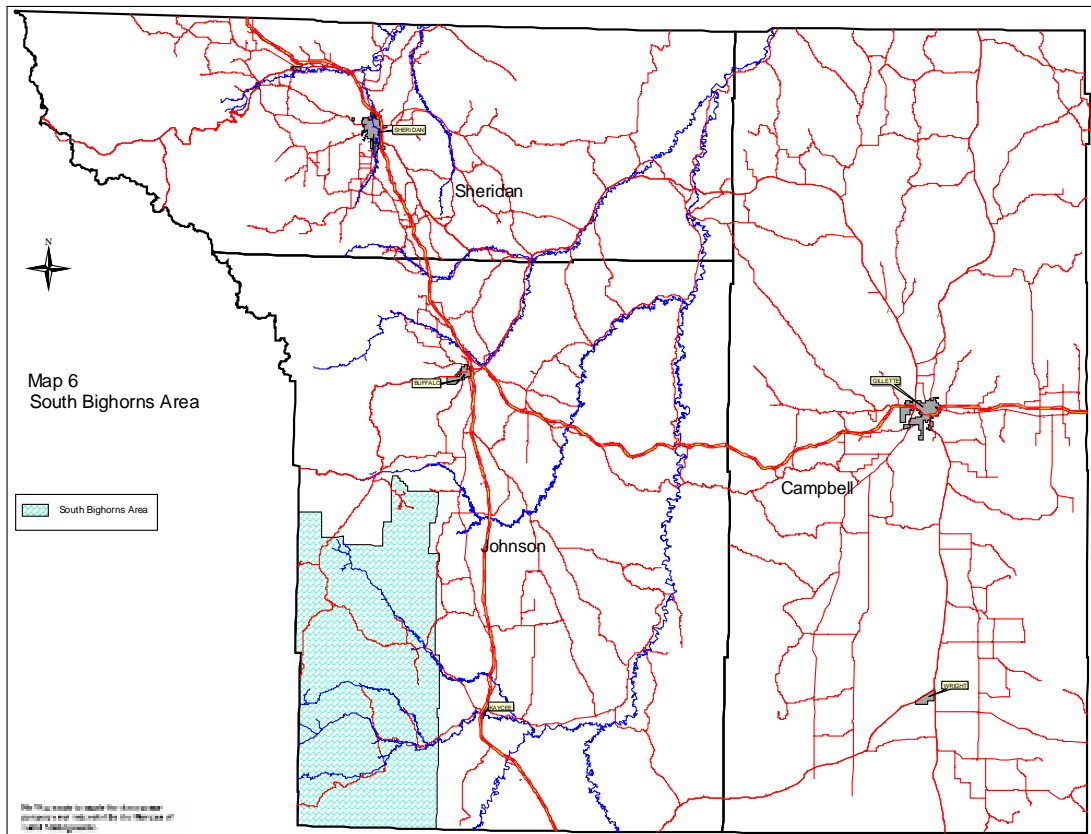
Management objective: Ensure continued public use and enjoyment of recreation activities while protecting and enhancing natural and cultural values; improve opportunities for high quality outdoor recreation; and, improve visitor services related to safety, information, interpretation, and facility development and maintenance.

BLM's management objectives specifically for the south Big Horns area are to complete on-the-ground ORV signing; to implement an access plan; to initiate a use census; to exchange lands to consolidate public ownership; to acquire access; and, to conduct level III cultural surveys.

Management decisions: The east slope of the south Big Horns encompasses about 20 townships south of the Bighorn National Forest to the Natrona County line as shown on map 6. Within this area are many sensitive and unique resource values: fisheries, wetlands, and riparian areas; cultural; elk, deer, and antelope habitat; and wilderness and scenery. Several site plans and one memorandum of understanding (MOU) already exists for managing these values. Following is a summary of current management for the area.

BLM's major goal in the south Big Horns area is to protect those values mentioned above while maintaining compatible multiple use activities. This is done by controlling visitor use, maintaining coniferous forest stands, controlling access during hunting, prohibiting surface disturbance or occupancy in the Red Wall/Hole-in-the-Wall area and within ½-mile of the rim of Middle Fork Canyon, obtaining additional mineral withdrawals in the Middle Fork of the Powder River area, and prioritizing additional lands for potential acquisition or exchange.

BLM's goal regarding wildlife values are to provide sufficient forage, cover, and water in helping to support the WGFD's big game population objectives. This is accomplished by improving rangelands, riparian areas, wetlands, and fisheries habitat that are in less than proper functioning condition to good condition. Numerous habitat improvement projects have been completed to date. Those include installing guzzlers, conducting prescribed burns, winter range fertilization, fencing projects, water



developments, off-road vehicle management, fishery improvements, and aspen regeneration. For an explanation of these terms, please see *Riparian Area Management: Process for Assessing Proper Functioning Condition* (USDI, BLM 1993).

In the Outlaw Cave area and the Dull Knife Battlefield site, management goals are to protect and preserve the cultural and archeological information, to provide for interpretation, and to nominate all significant sites to the National Register. Ideally, the objective for managing these sites is to do it within a multiple-use context; that is, considering all resources in the area. These goals have not been met entirely because private landowners in the area do not want general public access to the battlefield.

BLM's public forestlands management objective is to harvest timber in diseased old-growth and overstocked stands to enhance growing conditions and to assist the local economy through timber harvesting and milling. Impacts to other associated resource values such as wildlife, watershed, and recreation will be mitigated. Public land timber harvest activities are restricted within 200 feet either side of perennial streams. An additional 238 acres (less than 1%) of the commercial forestland base are streamside forestlands.

BLM's management objective for Gardner Mountain and North Fork WSAs is to manage the areas according to the BLM National Interim Management Guidelines until Congress either releases them from further consideration as wilderness or designates them as wilderness.

Continuing goals for these two wilderness study areas include preserving the existing wilderness characteristics of the areas and not allowing activity that would impair the suitability of the areas for preservation as wilderness. Access to the WSAs via existing roads and new construction is planned. A trail would be constructed to the North Fork WSAs if legal access is acquired. A trail has been identified to the Gardner Mountain WSA.

In the south Big Horns area, priority is given to land exchanges which can provide access to large blocks of BLM-administered public lands, to lands with unique resources, or to lands with riparian/wetland values. Private or state lands with high scenic value near well-blocked BLM-administered public lands are also considered very desirable for exchange. Since 1985, four exchanges of lands with high cultural, scenic, and recreational values have occurred.

All wildfires in the area are aggressively attacked and suppressed. However, heavy equipment may not be used to construct fire lines except to protect life and state or private property. More than 2,000 acres have been treated with prescribed fire

with an additional 5,000 acres planned to be treated to 2010.

Since 1985, 90 cultural sites in the Outlaw Cave area have been monitored, one sign has been installed at the Sweem-Taylor Rock Shelter (48JO301), the rock art motifs have been reproduced and photographed, test excavations have been undertaken at three sites, and the Bar C Rock Cairn Alignment (48JO302) has been photographed and mapped in detail. New legislation requiring Native American consultation has helped to obtain Native American interpretation and concerns for managing sites in the area.

In the Middle Fork of the Powder River area, additional trails created by hunters and fishermen will be closed in consultation with adjacent landowners (private, state, and WGFD). ORV designations have been completed and an access plan with desired access routes and desired closures has been written. Visitor use surveys have been completed, and visual classes are mapped. The federal mineral estate beneath state and private surface has not been withdrawn from mining location to protect the important resources.

Surface damage by vehicles used for recreational activities puts soils, vegetation, visual quality, cultural sites, deer, elk, and fisheries at risk. The potential for resource damage is greatest on specific high-use sites having public access.

The quality and quantity of wildlife habitat is at risk where timber harvests and livestock grazing actions are not coordinated with wildlife habitat requirements. There will probably be an increase in recreational homesites in the south Big Horns area.

At both of the archeological site complexes the values at risk are the loss or deterioration of cultural values. Surface uses from ORVs, hunting, fishing, sightseeing, and wildfire threaten the cultural and historical resources. There is no mining activity currently, but the lack of action taken on withdrawing the archeological sites from mining activities puts the sites at risk.

Foot\Horse Trail to Gardner Mountain WSA

The trail route to Gardner Mountain WSA begins at Ice Cave along the Mayoworth Slope Road and ends at Dull Knife Pass Overlook (7 miles). A cooperative agreement with the state of Wyoming is in place which allows access across state land.

Foot\Horse Trail to North Fork WSA

A decision in the 1985 RMP stated that access to the North Fork WSA will be provided by constructing a foot and horseback trail. To date, access across private lands (¼ mile) has not been obtained. Therefore, no trail exists.

Dry Creek Petrified Tree Environmental Education Area

Management objective: Ensure continued public use and enjoyment of recreation activities while protecting and enhancing natural and cultural values; improve opportunities for high quality outdoor recreation; and, improve visitor services related to safety, information, interpretation, and facility development and maintenance.

Management decisions: Preserve the Dry Creek area near its natural state, prevent or slow down deterioration of the petrified trees, and inform the visitor about the area.

An outhouse is planned for the area if use justifies, and a way to protect the largest deteriorating petrified tree will be identified. Surface disturbance or occupancy is prohibited within ½ mile of the site unless waived by the authorized officer. The Dry Creek Petrified Tree Area was set aside as an Environmental Education Area in 1978. The area contains a rehabilitated access road, a parking area, picnic table, interpretive facilities, and fencing to exclude livestock.

Fortification Creek Area

Management objective: Ensure continued public use and enjoyment of recreation activities while protecting and enhancing natural and cultural values; improve opportunities for high quality outdoor recreation; and, improve visitor services related to safety, information, interpretation, and facility development and maintenance.

Management objectives specific to the Fortification Creek area are to allow orderly development of mineral resources while protecting wildlife habitat and watershed areas, and maintaining wilderness values (naturalness, solitude, and primitive and unconfined recreation).

Management decisions: No surface occupancy is allowed in elk calving areas (5,700 acres), and a seasonal timing restriction is applied to elk wintering areas (26,000 acres). It is a requirement that all oil and gas production be piped out of crucial elk winter range and that necessary precautions are taken to protect the highly erosive soils in the area. The area includes the Fortification Creek WSA, crucial elk habitat, and areas of highly erosive soils. Oil and gas drilling has diminished in the Fortification area, and some locations have been reclaimed.

Weston Hills Recreation Area

Management objective: Ensure continued public use and enjoyment of recreation

activities while protecting and enhancing natural values; improve opportunities for high quality outdoor recreation; and, improve visitor services related to safety, information, interpretation, and facility development and maintenance.

Management decisions: Off-highway vehicle use is limited to designated (marked with white arrows) roads. In additions an existing (and marked) foot, horse, and mountain bike loop is open to ATV use (motorized vehicles 50 inches wide or less). The loop trail will be closed to motorized vehicles from September 15 through October 20. This will limit disturbance to wildlife before and during the big game rifle hunting season. Two additional loop trails for foot, horse, mountain bikes, and motorized vehicles 50 inches wide or less will be considered. Development of these trails could take place after monitoring of the area shows that there is a need and that the appropriate analysis is completed.

Mosier Gulch Recreation Area

Management objective: Ensure continued public use and enjoyment of recreation activities while protecting and enhancing natural and cultural values; improve opportunities for high quality outdoor recreation; and, improve visitor services related to safety, information, interpretation, and facility development and maintenance.

Management decisions: In 1987, a picnic area was developed on BLM-administered public lands in Mosier Gulch, which lies west of Buffalo along U.S. Highway 16 at the foot of the Big Horn Mountains. An MOU between BLM, the City of Buffalo, and Johnson County was entered into. **The objective of the MOU is to jointly develop and manage recreational facilities on lands administered by all three agencies in the greater Mosier Gulch area.** As an attachment to the MOU, a number of projects were identified. **Oil and gas leasing and development is not allowed in the area.**

Cantonment Reno Area

Management objective: BLM's management objectives for this site are to preserve significant historic remains and scientific potential, to promote historic research, and to develop an interpretation area to protect and enhance the visitor's awareness of the history of the area.

Management decisions: **The area is a no surface occupancy area for mineral development.**

Cantonment Reno, located east of Kaycee, was a military post at the Bozeman Trail crossing of the Powder River. Established in 1876, 3 miles upstream from the earlier Fort Reno, the post served as a supply depot and telegraph station until 1878, when the post

was renamed and relocated closer to the Big Horn Mountains. The lands occupied by the post were retained in public (BLM) ownership except for a portion which is on state land. The telegraph station continued in service after the post was moved to Fort McKinney, and a civilian community known as Powder River Crossing grew up on the opposite bank. This site has 518½ acres of public land.

If funding can be obtained, there are cooperative institutions willing to participate in research, stabilization, and interpretive development at this site. A cultural resource management plan was completed for the area in 1985, and a land exchange has been proposed to acquire legal access to that portion of the site not on BLM-administered public land.

Bozeman Trail and Crazy Woman Battle Site

Management objective: BLM's management objectives are to preserve historic values on significant trail segments on BLM-administered public surface and to preserve such values on other segments when affected by federal minerals development (map 7).

Management objectives for the Crazy Woman battle site are to preserve the historic values at the site and to develop cooperative interpretation in partnership with the Wyoming State Parks and Historic Sites. Future management actions include planning and developing an interpretive site and periodic monitoring.

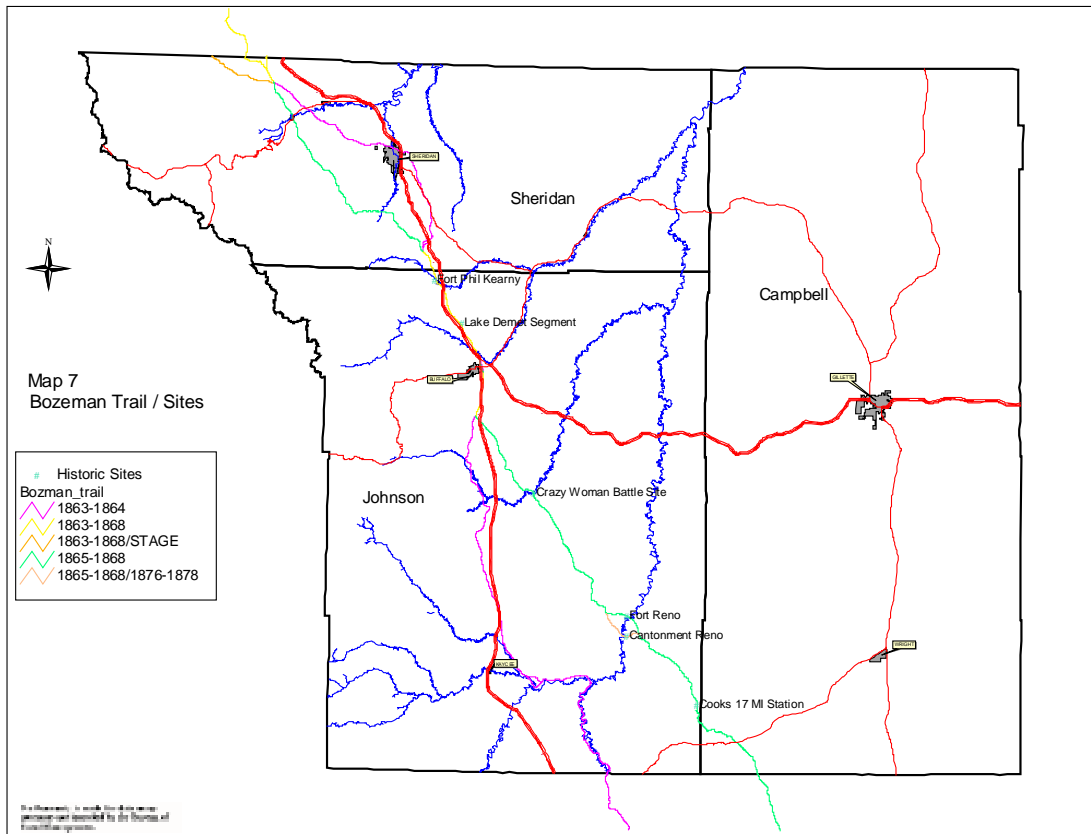
Management decisions: No surface occupancy stipulations will be applied to mineral leases where potentially eligible or significant segments exist (within ¼ mile or visual horizon, whichever is closer, from the Bozeman Trail; map 7).

Where the Bozeman Trail crosses Crazy Woman Creek several conflicts occurred between military supply trains bound for Fort Phil Kearny and Sioux and Cheyenne tribesmen. Three fights occurred in 1867 and 1868. During the 1876 campaign, the site was a staging area for General Crook's troops. The site is located on both federal and state lands.

Any plans for interpretation and development of related sites along the Bozeman Trail will generally follow the state sponsored plan, *Promoting Historical and Cultural Resources Along the Bozeman Trail* (McDermott Associates 1989).

Cooperative Agreements for Hunting Access

There are two special "cooperative hunting areas" in the resource area to provide additional access to public lands and to help prevent trespassing on private lands. One area is near the Powder River between Buffalo and Gillette and contains 9,800 acres of which 4,300 acres are deeded. The other area is south of Kaycee and north of Midwest



and contains approximately 100,000 acres of which 47,000 are deeded, and 53,000 acres are managed by the BLM and the state. Both areas resulted from the desire of public agencies and private landowners to resolve hunting and access problems. These two areas are excellent examples of cooperation between landowners, BLM, and the WGFD.

There will be an increased need by public land agencies and private landowners to eliminate hunter access problems. As access fees increase on private land, more hunters will demand additional access to public lands. An increase in cooperative access agreements is expected in the future.

BLM will continue to maintain 16½ miles of road every year (Bar C, Billy Creek, Muir, Petrified Tree, and Weston West) and will continue to maintain existing recreation facilities and roads at the same level.

SOIL RESOURCES MANAGEMENT DECISIONS

Management objectives: Maintain soil cover and productivity and provide for improvement in areas where soil productivity may be below potential on BM-administered public land surface.

Management decisions: Timber harvest activities will be limited to slopes of 45% or less to protect the water quality and to keep soil from eroding. Most of the commercial forest lands in the planning area is on slopes under 45% (30,950 acres); 12,450 acres of commercial forest land are on slopes greater than 45%.

Surface occupancy and disturbance will not be allowed on slopes of 25% or more (281,100 acres).

ORV travel will be prohibited on wet soils and on slopes greater than 25% if unnecessary damage to vegetation, soils, or water quality would result. Roads and trails will be closed and reclaimed if they are heavily eroded, washed out, or if access roads in better condition are available. Head seepages on all spring developments on BLM-administered public lands will be fenced.

No surface disturbance or occupancy will be allowed in areas of severe erosion from March 1 until June 15. As they are needed, conservation practices and state of Wyoming best management practices will be applied to surface-disturbing activities. Approximately 1,819,000 acres in the resource area have been identified as having severe erosion.

THREATENED, ENDANGERED, AND CANDIDATE SPECIES PROTECTION

Management objective: 1) Maintain biological diversity of plant and animal species; 2) support WGFD strategic plan population objective levels to the extent practical and to the extent consistent with BLM multiple use management requirements; 3) maintain, and where possible, improve forage production and quality of rangelands, fisheries, and wildlife habitat; and 4) to the extent possible, provide habitat for threatened and endangered and special status plant and animal species on all public lands in compliance with the Endangered Species Act (ESA) and approved recovery plans.

Management decisions: Known populations of threatened and endangered species will be protected as mandated by law. The FWS is the only agency that can list a species as endangered, threatened, or candidate. It is estimated that from 100 to 200 bald eagles winter in the planning area. Bald eagle roosts commonly occur along drainages that have mature cottonwood or coniferous trees. Two bald eagle nests are known to exist on private land in Sheridan County. Surveys conducted by BLM, the WGFD, and the FWS suggest that bald eagle numbers are increasing in the resource area. The bald eagle was recently downlisted from endangered to threatened status after it was determined that the population has rebounded in recent years.

Surface disturbance or occupancy will not be allowed within ½ mile of communal winter roosts for bald eagles from November 1 through March 30. Documented nest sites, roosts, cottonwood trees, and other potential critical habitats related to hunting and concentration areas for bald eagles will also be protected.

Peregrine falcons may migrate through the planning area; however, there are no known nest sites. There is potential peregrine habitat in the south Big Horn Mountains area in canyons such as the North Fork and Middle Fork of the Powder River, Beaver Creek, Buffalo Creek, and the Red Fork of the Powder River.

No reports of black-footed ferrets have been confirmed in the planning area, but several unconfirmed sightings have been reported by the WGFD. Black-tailed prairie dogs, which are potential ferret habitat, are found on about 2,000 acres of public land in the resource area. Prairie dog populations have been eliminated on private land by poisoning programs conducted by landowners and weed and pest districts. Sylvatic plague, a fast-spreading disease which has been known to kill large numbers of prairie dogs, has also occurred in the resource area. Each year, many prairie dog hunters request access from landowners and federal agencies in the planning area to pursue recreational shooting activities. The majority of these recreational prairie dog hunters are against poisoning programs (USDI, BLM 1982). Two to three black-footed ferret surveys are conducted each year in the planning area mainly in association with oil and gas leasing.

The whooping crane may migrate through the planning area, but there are no known whooping crane habitats.

Sensitive Plants

Management objective: 1) Maintain biological diversity of plant and animal species; 2) support WGFD strategic plan population objective levels to the extent practical and to the extent consistent with BLM multiple use management requirements; 3) maintain, and where possible, improve forage production and quality of rangelands, fisheries, and wildlife habitat; and 4) to the extent possible, provide habitat for threatened and endangered and special status plant and animal species on all public lands in compliance with the Endangered Species Act (ESA) and approved recovery plans.

Management decisions: BLM will protect known populations of rare or sensitive plants as required under the same laws as for threatened and endangered animals. The Nature Conservancy, under contract to the BLM, has conducted several surveys for sensitive plants in the resource area. No plants have been found in the resource area that are on the threatened or endangered Species list. A population of *Spiranthes diluvialis* (Ute ladies' tresses), Wyoming's only listed threatened plant species, was discovered in northern Converse County in 1994, not far from the southeastern border of the resource area.

Information, including a complete description of survey locations, habitat characteristics, abundance, and identification characteristics of these sensitive plants is available at the Buffalo Field Office.

VEGETATION RESOURCES MANAGEMENT DECISIONS

Vegetative Treatments

Management objective: Maintain or improve the diversity of plant communities to support timber production, livestock needs, wildlife habitat, watershed protection, and acceptable visual resources; and reduce the spread of noxious weeds.

Management decisions: Vegetation treatments, including timber harvesting and sagebrush spraying or burning, will be designed to meet overall resource management objectives and will be consistent with the policy to protect or improve biodiversity and water quality.

Prescribed burns will be conducted to support vegetation and wildlife habitat objectives. Fire is used as a management tool to improve range forage production, wildlife habitat, timber stand improvement and sale debris disposal, and to reduce hazardous fuel buildup.

Livestock grazing strategies on vegetative treatment areas generally include rest

the first year following treatments and deferment of livestock grazing the second year. Rangeland treatments such as prescribed burning are developed or applied in "I" and "M" category grazing allotments using range betterment funds and private investment. Projects that primarily benefit livestock grazing are authorized on "C" category grazing allotments; funding is provided by the grazing lessee.

Since 1985, prescribed burning has been done on about 25,000 acres of rangelands, of which 8% is on BLM-administered public surface. About 50,000 acres of prescribed burning will be conducted in the planning area through 2005, of which 10% will be on BLM-administered public surface.

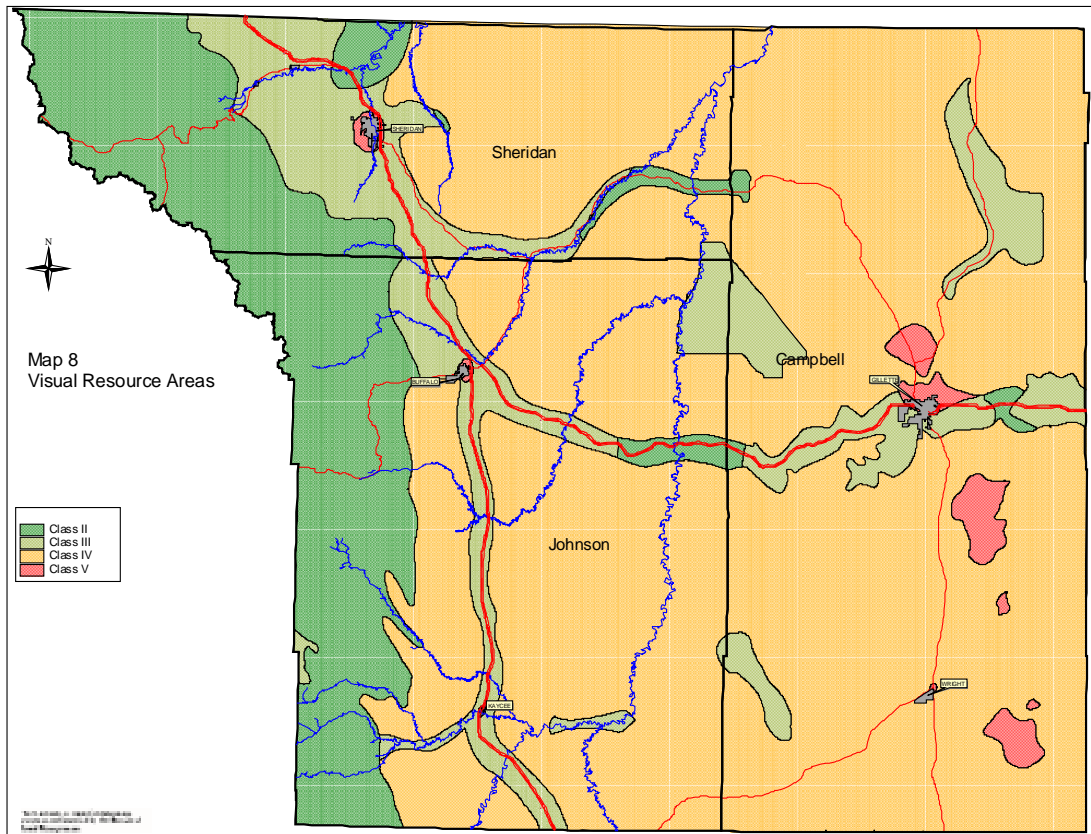
In cooperation with county weed and pest districts, cooperative integrated weed control programs are being implemented on public land in conjunction with control work on adjoining deeded and state lands. Since 1985, about 100 acres (less than 1% of the total) of noxious weeds on public land have been treated annually with chemical herbicides applied under contract by the county weed control districts. Four biological control projects (about 400 acres), including prescribed grazing by livestock and release of insects, are maintained on public land. This level of control is expected to increase by 10% through 2005.

Trees will be planted on timber harvest areas that fail to regenerate naturally to minimum stocking levels within five years after completing harvest and rehabilitation activities. Precommercial tree thinning will be initiated on overstocked releasable seedling and sapling size stands. Approximately 200 acres have been thinned since 1985, and about 200 acres have been planted annually through 1994. The acreage thinned and planted is expected to be around 100 and 40 acres, respectively, through 2005.

VISUAL RESOURCES MANAGEMENT DECISIONS

Management objective: Maintain or improve scenic values, visual quality, and establish visual resource management priorities in conjunction with other resource values.

Management decisions: Visual resources are managed in accordance with objectives for visual resource management (VRM) classes that have been assigned to the planning area (map 8). No activity or occupancy is allowed within 200 feet of the edge of state and federal highways. Facilities or structures such as power lines, oil wells, and storage tanks are required to be screened, painted, and designed to blend with the surrounding landscape except where safety indicates otherwise. Any facilities or structures proposed in or near WSAs will be designed so as not to impair wilderness suitability.



WATERSHED AND WATER RESOURCES MANAGEMENT DECISIONS

Management objectives: Maintain or improve surface and groundwater quality consistent with existing and anticipated uses and applicable state and federal water quality standards; provide for availability of water to facilitate authorized uses, and to minimize harmful consequences of erosion and surface runoff from BLM-administered public land.

No surface disturbance will be allowed within 500 feet of any spring, reservoir, water well, or perennial stream unless waived by the authorized officer. Pollution prevention plans are developed for actions that qualify under the Wyoming Storm Water Discharge Program to reduce the amount of nonpoint pollution entering waterways. Please see [appendix B](#) for more information.

The rights to water-related projects on public lands will be filed with the Wyoming state engineer's office in order to obtain valid water rights. Mineral exploratory wells and drill holes that produce water are occasionally acquired. These acquired wells are developed for multiple-use purposes if they meet criteria for water well conversion. Water wells and watershed projects that are no longer functioning or serving their original purposes are reclaimed and abandoned as appropriate.

WILDLIFE HABITAT MANAGEMENT DECISIONS

Management objectives: 1) Maintain biological diversity of plant and animal species; 2) support WGFD strategic plan population objective levels to the extent practical and to the extent consistent with BLM multiple use management requirements; 3) maintain, and where possible, improve forage production and quality of rangelands, fisheries, and wildlife habitat; and 4) to the extent possible, provide habitat for threatened and endangered and special status plant and animal species on all public lands in compliance with the Endangered Species Act (ESA) and approved recovery plans.

Management decisions: The specific stipulations that place restriction on the surface and mineral uses of public lands are listed under "Special Attention Areas" or "Areawide Resource Management" sections.

Big game and fisheries management levels identified in the WGFD's 1990-1995 strategic plan are supported by the BLM (WGFD 1990). BLM cooperates with the WGFD in introducing or reintroducing native and acceptable nonnative wildlife and fish within the planning area where potential habitat exists. Accommodating changes to WGFD planning objectives are considered based on habitat capability and availability. Wildlife habitat is monitored and population adjustments and habitat improvements are recommended to the WGFD, as appropriate.

High priority grazing allotments are monitored to evaluate range condition and dietary overlaps between domestic livestock and big game during winter and spring (appendix B).

Approximately 65 miles of BLM-administered stream habitat are managed for game fish; 11 additional miles of BLM-managed stream habitat are managed for nongame fish. BLM works with the Fish and Wildlife Service (FWS) and the WGFD in evaluating and designating critical habitat for threatened and endangered species on public land.

Wildlife habitat use is expected to decrease between 1991 and 2005 due to the cumulative effects of human-related activities on wildlife habitats.

Constructing islands in reservoirs, improving riparian vegetation by planting and grazing management, and installing nesting structures to improve waterfowl production and security areas near reservoirs will be encouraged. Waterfowl nesting and rearing habitat is improved on about five reservoirs that regularly produce young during normal and wet years.

Reservoirs and riparian areas are sometimes maintained to improve or enhance potential fisheries. Designing reservoirs to enhance fisheries where potential exists will be encouraged. Coal bed methane wells could increase fishery potential.

Big Game Ranges

Management decisions: No surface disturbance and occupancy is allowed on the WGFD's four big game ranges unless waived by the authorized officer (table 5). The BLM-administered public lands in the Ed Taylor and Amsden Creek game ranges have been withdrawn for locatable minerals. The wildlife units have low potential for oil and gas. Coordinated habitat management projects between the BLM and the WGFD have taken place on the Ed Taylor game range to include fertilization, fences, controlled burning, and signing. Management of the game ranges comes under the master MOU between the WGFD and BLM.

Buffalo Wetland and Riparian Areas

Management decisions: Riparian areas and wetlands in less than proper functioning condition will be improved. The goal is to either create, improve, or maintain existing riparian and wetland areas for waterfowl such as ducks, geese, and shorebirds; warm- and cold-water fish; and other wildlife species that depend on these areas for their health and well being.

TABLE 5

BIG GAME RANGES IN THE PLANNING AREA

Game Range	Total Acres	BLM-administered Surface Acreage	Federal Mineral Acreage
Ed O. Taylor	10,000	4,000	9,960
Bud Love	6,000	0	420
Amsden	3,000	560	1,160
Kerns	5,000	120	2,720
Total acres	24,800	4,680	14,260

The preferred method for improving riparian habitat is by developing cooperative grazing systems thus allowing streams and wetlands to return to a proper functioning condition.

Other methods may include water development, fencing, and herding. By 2005, our goal is to improve 5 miles of riparian habitat and maintain 70 miles in proper functioning condition.

Riparian areas and wetlands on BLM-administered public lands are a valuable resource that constitute less than 1% of the total acreage managed by the BLM. An initial survey of riparian areas conducted in 1994 found that approximately 70 miles of riparian areas along streams (600 acres) were in proper functioning condition. There were 3 miles and 16 acres in "functioning at risk" condition, and 2 miles and 4 acres in "nonfunctioning" condition. More detailed studies are needed to evaluate specific vegetative, hydrologic, and soils information before a final analysis can be completed. For an explanation of these conditions, please see *Riparian Area Management: Process for Assessing Proper Functioning Condition* (USDI, BLM 1993).

Any study exclosures or other special exclosures such as riparian and wetland sites on springs and streams are closed to livestock grazing. Surface disturbance is not allowed within 500 feet of surface water including springs, reservoirs, water wells, and perennial streams (about 19,000 acres). About 65 acres of wetland and riparian sites on BLM-administered public lands in the area have been closed to livestock grazing since 1985.

Elk Habitat

Management decisions: Timber harvest activities are not allowed in areas where critical elk habitat occurs or where hiding cover is insufficient to meet the minimum needs of this species (about 8,000 acres).

Surface disturbance or disruptive activity is not allowed in crucial elk winter range

(11,045 acres) between November 15 and April 30, and in elk calving areas (5,700 acres) from May 1 to June 30, when necessary.

Raptor and Grouse Breeding Areas

Management decisions: Surface occupancy or disturbance is not allowed on approximately 6,000 acres in the study area to protect important raptor, sharp-tail grouse, and sage grouse habitat. An additional 430,700 acres may be restricted from surface-disturbing activities during the breeding and nesting period (February 1 to July 31). Buffers are established with radii from 250 yards to ½ mile for sharp-tailed grouse dancing grounds from April 1 through May 30. The buffers for sage grouse strutting grounds (leks) vary from ¼ mile radius to 1¾ miles from March 1 to June 15. The field office manager can approve exceptions, modification, or waivers to this restriction. An exception to the timing stipulation would be written if raptor nests or grouse leks were inactive, or if distance and topographic screening mitigates disturbance to these species.

Surface disturbance or occupancy is not allowed within ½ mile of communal winter roosts for bald eagles from November 1 through March 30. Surface disturbance will not be allowed around "biologic" buffer zones delineated for eagle roosts from November 1 through March 30.

Animal and Insect Damage Control

Management decisions: No animal damage control is allowed on BLM-administered public lands unless a need for control is determined. The US Department of Agriculture, Wildlife Services is the only agency approved to control predators on public lands. Their relationship with the BLM and control measures were analyzed in the *Environmental Assessment for Predator Damage Management in Eastern Wyoming* (USDA, APHIS n.d.). The decision record for that document was signed January 23, 1998 (USDA, APHIS 1998). Part of this process includes preparing an annual report and a proposed work plan for the year. Predator control on public land is done in accordance with the above documents.

BLM cooperates with APHIS to control grasshoppers and Mormon crickets on public lands in conjunction with the control efforts initiated on adjoining nonfederal lands. Based on the cyclic occurrence of economically significant densities of the insects, about 25,000 acres of public lands out of a total of 300,000 acres of all ownerships are treated with chemicals once over a 10- to 15-year period to control grasshoppers. Biological control is also used in some isolated areas.

Rodents like prairie dogs will be controlled by APHIS on BLM-administered public

lands. Since 1985, no rodent control projects have been authorized or are expected to be authorized. There is a large demand for recreational shooting of prairie dogs each year; however, prairie dog numbers have declined in the area due to sylvatic plague outbreaks.

WILD AND SCENIC RIVERS

Management objectives: The management objective for the BLM-administered public lands that meet the wild and scenic rivers (WSR) suitability factors is to maintain or enhance their outstandingly remarkable values and wild and scenic rivers classifications until Congress considers them for possible designation (appendix G).

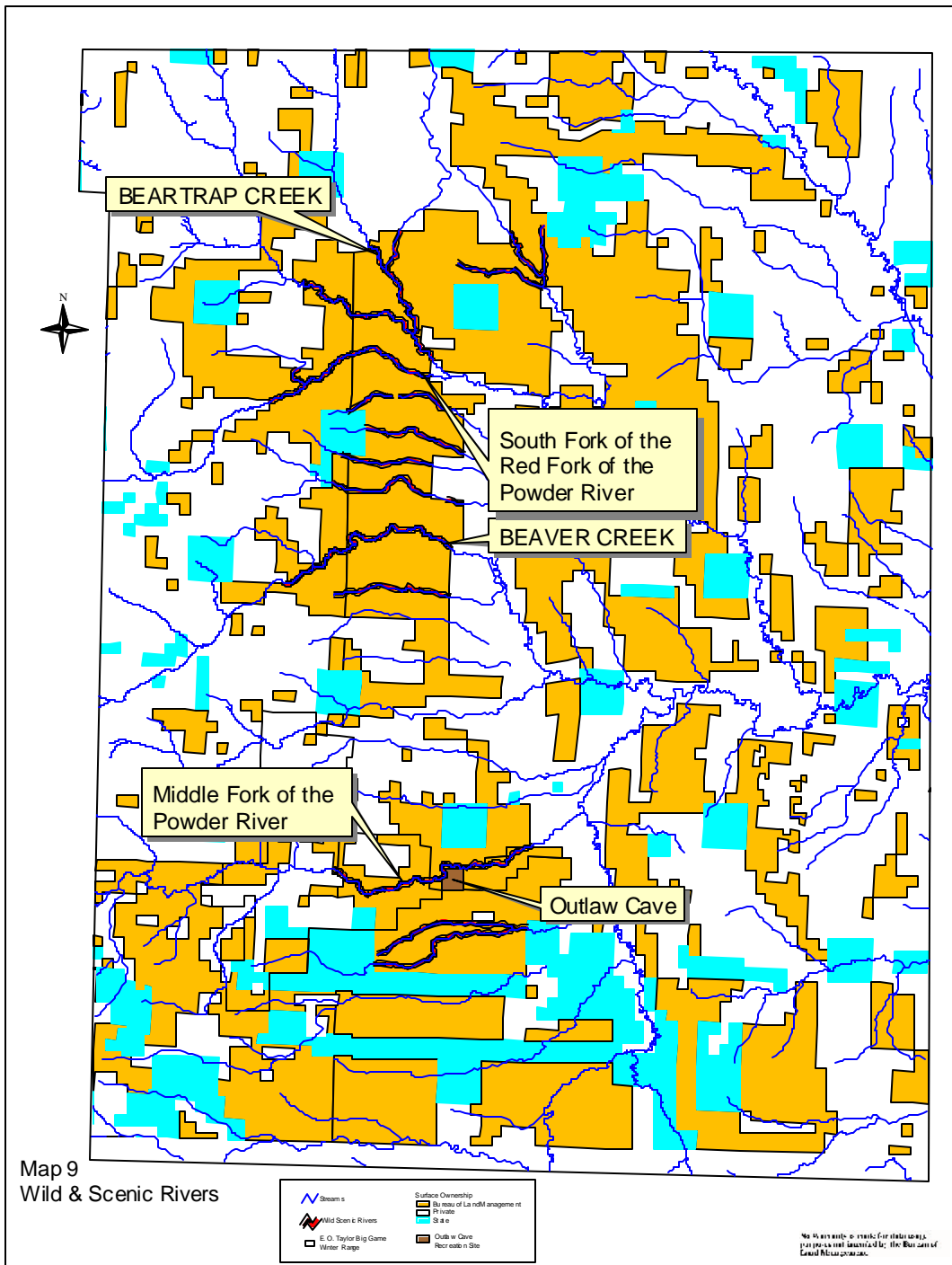
The BLM has determined that the BLM-administered public lands along the review segment of the Middle Fork of the Powder River (map 9) meet the WSR suitability factors and should be managed to maintain or enhance their outstandingly remarkable values for any possible future consideration for inclusion in the WSR system.

The suitable determination is based on the uniqueness of the diverse BLM land resources and their regional and national significance, making them worthy of any future consideration for addition to the WSR system.

The outstanding scenic, fisheries, wildlife, historic, recreational, and cultural values associated with the BLM-administered public lands within the review segment make this a uniquely diverse waterway segment in the region. Within the review segment, fish populations and habitat are of particularly high value. The review segment is one of only two waterway segments in the entire Big Horn Mountain Range classified as a Class 1 fishery with both regional and national importance. Outlaw Cave, also located on BLM-administered public lands within the waterway review segment, is a nationally famous and regionally important historical site.

Making up 85% of the lands along the review segment, the BLM-administered public lands are manageable by BLM under the provisions of the WSR Act. Other factors that complement and enhance this manageability include: 1) the existing public access to and along the review segment; 2) management consistency and compatibility with the 1.3 miles of the waterway (another 10% of the review segment) that is owned and administered by the Wyoming Game and Fish Department; 3) the existing State of Wyoming instream flow reservation for fisheries management through the review segment; and, 4) there are no anticipated conflicts with the management objectives on the intermingled private lands within the review segment (three short private land segments making up a total of about 0.6 miles, or 5%, of the review segment).

The concerns of the local landowners and general public for potential problems associated



with potential increased visitor pressure in the area can be controlled and managed. The general management direction provisions for dealing with these concerns and for maintaining or enhancing the qualifying WSR resource values on the BLM-administered public lands within the review segment will be developed in the course of developing the Buffalo planning and management decisions document.

In keeping with the strong local opposition to the WSR concept in the planning area in general, and in keeping with the Wyoming BLM WSR policy statement (June 1993), the BLM will not make or escalate any recommendations for WSR designation of the BLM-administered public lands within the Middle Fork of the Powder River review segment. Future Congressional consideration for WSR designation could still occur should Congress decide to do so at its volition, if public opinion should change to support such consideration, or if such a recommendation to Congress should be sponsored and supported by Wyoming state government or some other appropriate entity. In the interim, perhaps indefinitely, the BLM will continue its existing management as described in this document. Under this management, wild and scenic river characteristics were, and will be, maintained.

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GLOSSARY

Allotment: Refers to an area containing public land designated and managed for grazing of livestock.

Allotment management plan (AMP): A documented program which applies to livestock grazing on the public lands. It is prepared in consultation, cooperation and coordination with the lessee(s) or other involved affected party.

Alluvial valley floors (AVFs): An area of unconsolidated stream-laid deposits holding streams with water availability sufficient for subirrigation or flood irrigation agricultural activities.

Animal unit month: A standardized unit of measurement of the amount of forage necessary for the complete sustenance of one animal unit for one month; also, a unit of measurement of grazing privileges that represents the privilege of grazing one animal unit for a period of one month.

Appropriate management response: Specific actions taken in response to a naturally occurring wildland fire to implement protection and fire use objectives, while considering firefighter and public safety, anticipated management costs, resource values at risk, resource benefits, threats to private property, opportunities for reducing hazardous fuels, and political and social concerns. These might include confining or containing a wildland fire so it stays within a predetermined boundary, or aggressively and quickly suppressing the fire.

Archeological/historic site: A site that contains either objects of antiquity or cultural values relating to history and/or prehistory that warrant special attention.

-B-

Biological diversity: The variety of life and its processes; it includes the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur.

Buffalo Field Office Area: The administrative boundary of the resource area including Sheridan, Johnson, and Campbell counties regardless of landownership. The Buffalo BLM only administers the surface of public lands and mineral estates within these boundaries (excluding Forest Service lands).

-C-

Camping: Includes auto and trailer camping along with other camping at developed sites, and back country camping.

Candidate species: Species for which substantial biological information exists on file to support a proposal to list as endangered or threatened, but no proposal has yet been published in the *Federal Register*. The list of candidate species is revised approximately every two years in the Notice of Review.

Casual use: Activities that involve practices which do not ordinarily cause any appreciable disturbance or damage to the public lands, resources, or improvements and, therefore, do not require a right-of-way grant or temporary use permit.

Communication site: An area of public land granted to an applicant under authority contained in the Act of March 4, 1911 (36 CFR 1253; USC 961), and the regulations, to be used for a communication structure of facility.

Compliance: Adapting one's actions to another's wishes.

Cooperation: Individuals or groups working together to come to a mutual agreement.

Cultural resource management: Programs designed to protect, preserve, and/or scientifically study cultural resources and the natural resources that figure significantly in cultural systems. The objectives of such programs should be the conservation and protection of cultural values through management and the scientific study of these resources for the public good.

Cultural resources: Those fragile and nonrenewable physical remains of human activity, occupation, or endeavor reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture, burial mounds, petroglyphs, and natural features that were of importance in past human events. These resources consist of a) physical remains; b) areas where significant human events occurred, even though evidence of the event no longer remains; and, c) the environment immediately surrounding the resource. Cultural resources are commonly discussed in terms of prehistoric and historic values; however, each period represents a part of the full continuum of cultural values from the earliest to the most recent.

-D-

Disposal, land: A transaction which leads to the transfer of the title to public lands from federal government.

-E-

Ecosystem: Ecosystems consist of groups of organisms occurring together and all environmental factors that influence them directly and indirectly.

Endangered species: Any animal or plant species in danger of extinction throughout all or a significant portion of its range. Also see **candidate species** and **threatened species**.)

Evaluation: Determining the worth of something by a rating method.

Exchange: A transaction whereby the federal government receives land or interests in land in exchange for other land or interests in land. A trading of public lands (surface and/or subsurface estates) that

usually do not have high public values for lands in other ownership which do have value for public use, management, and enjoyment. The exchange may be for the benefit of other federal agencies as well as the BLM.

-F-

Federal land: All classes of land owned by the federal government.

Federal Land Management and Policy Act of 1976 (FLPMA): It gives the BLM direction as a multiple use public land agency. Commonly called the "Organic Act" for the BLM.

Fire suppression: Fire control activities concerned with controlling and extinguishing a fire, starting at the time the fire is discovered.

Fishing: Includes fishing from the shore, and from a boat when the boat is secondary to the fishing activity.

Free-use permit: A permit to a government agency or nonprofit group to use mineral materials, such as sand and gravel, or other resources at no charge.

-G-

Game range: A wildlife refuge for certain game animals.

Grant: A gift of public lands, either in quantity or in place. Also, the document or the action which conveys land or an interest in land.

Grazing allotment: A parcel of grazing district lands which is assigned, pursuant to the federal range code for grazing districts, to an applicant for grazing privileges within grazing districts or to a group of such applicants.

-H-

Hunting: Includes big- and small-game hunting, waterfowl hunting, and trapping.

-I-

Improvements: Includes any structures or developments of a permanent nature which tend to increase the value of land, such as buildings, fences, clearings, wells, or gates.

Interest: Ownership in a lease or prospective lease of all or a portion of the record title, working interest, operating rights, overriding royalty, payments out of production, carried interests, net profit

share, or similar instruments for participation in the benefit derived from a lease.

-L-

Landscape: A relatively large area of land with common climate, geology and soils containing predictably occurring terrain features such as slopes, drainage channels, rock outcrops, etc.

Lease: An authorization to possess and use public land for a period of time sufficient to amortize capital investments in the land.

License: An authority granted to the United States to do a particular act or series of acts upon public lands without the licensee possessing any estate or interest in the land itself.

Livestock: Cattle, sheep, horses, burros, and goats.

Locatable minerals: Whatever are recognized as minerals by the standard authorities, whether metallic or other substances, and are found in sufficient quantity and quality to justify their location under the Mining Law of 1872, as amended.

Location: A claim to public lands which is established either by the surrender of scrip or by the initiation of a mining or settlement claim.

-M-

mbf: Thousand board feet. A board foot is a unit of lumber measurement one foot long, one foot wide, and one inch thick, or its equivalent. It is the standard unit of measurement in the logging and timber industry by which standing timber is measured and sold and manufactured lumber is merchandised.

Mineral: Organic and inorganic substances occurring naturally, with characteristics and economic uses that bring them within the purview of mineral laws; a substance that may be obtained under applicable laws from public lands by purchase, lease, or pre-emptive entry.

Mineral entry: A cash entry of public lands which are held as a mining claim or desired as a millsite.

Mineral materials: Minerals such as common varieties of sand, stone, gravel, pumice, and clay that are not obtainable under the mining or leasing law but that can be obtained under the Materials Act of 1947, as amended.

Mineral rights: Rights which attach only to mineral deposits.

Mining location: A mining claim.

mmbf: Million board feet (see **mbf**).

Multiple use: A combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, and wildlife and fish, along with natural scenic, scientific, and historical values.

-N-

National Environmental Policy Act (NEPA): The basic national contract for protecting the environment. This act establishes policy, sets goals, and provides different ways to carry out the policy. It also requires the federal government to assess the environmental impacts of their actions.

National forest: A forest or weathershed reservation which is administered by the Forest Service, United States Department of Agriculture, for multiple uses including grazing, logging, and recreation.

National Register of Historic Places (NRHP): A federal government list of "... districts, sites, buildings, structures, and other objects significant in American history, architecture, archeology, and culture." The National Register is maintained by the National Park Service, U.S. Department of the Interior, and is published in its entirety in the *Federal Register* each year in February.

Notice: The communication of a pending action; the notification of parties of actions about to be taken. This is a part of due process.

-O-

Occupancy: Actual possession and use of land in something more than a slight or sporadic manner. As defined as a multiple use component, it is the management of public lands for occupancy involves the protection, regulated use, and development of lands as sites for economically and socially useful structures, either publicly or privately owned.

Off-road vehicle (ORV): Any vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, deriving motive power from any source other than muscle. The term **excludes** a) any nonamphibious registered motorboat; b) any fire, emergency, or law enforcement vehicle while being used for official or emergency purposes; and, c) any vehicle whose use is expressly authorized by a permit, lease, license, or contract issued by the authorized officer or otherwise approved.

Off-road vehicle (ORV) travel: Driving or riding in off-road areas (including trails). The type of vehicle and its capabilities are secondary to where and how the vehicle is used. The primary purpose of the riding or driving must be for recreation. Off-road travel includes off-road motorcycle and scooter

driving, snowmobiling, etc.; specialized craft such as all-terrain vehicles, swamp buggies, and four-wheel drives; and, conventional vehicles for off-road or trail purposes.

Operator: An individual, group, association, or corporation authorized to conduct, for example, livestock grazing, oil and gas drilling, or coal mining, on public lands.

Outdoor recreation: Includes, but is not limited to, hunting, fishing, trapping, photography, horseback riding, picnicking, hiking, camping, swimming, boating, rock and mineral collecting, sight-seeing, mountain climbing, and skiing. As defined as a multiple use component, it is the management of public lands for outdoor recreation; involves the protection, regulated use, and development of public lands having open space values in a manner that will make them available for appropriate recreation enjoyment by the public.

-P-

Paleontology: A science dealing with the life of past geological periods as known from fossil remains.

Patent: A government deed; a document or instrument that conveys legal title to public lands to the patentee.

Patented: Lands which have been conveyed to private ownership in fee simple, and over which the federal government exercises no control. In some patents, or "deeds," the mineral rights were retained and are administered by the BLM.

Permit: A revocable authorization to use public land for a specified purpose for up to three years.

Planning area: Includes all of Campbell County and the parts of Sheridan and Johnson counties outside the Bighorn National Forest.

Powersite withdrawals: Lands which may have potential for water generated power through the construction of dams. The lands are withdrawn from the general land laws to protect that potential. The withdrawal can be lifted under certain conditions.

Project: Includes both the Study phase and the Plan phase.

Public lands: Any land and interest in land owned by the United States that are administered by the Secretary of the Interior through the BLM, without regard to how the United States acquired ownership, except for a) lands located on the Outer Continental Shelf and b) lands held for the benefit of Indians, Aleuts, and Eskimos. Includes public domain and acquired lands (see definitions). Vacant, unappropriated, and unreserved public lands, or public lands withdrawn by Executive Order 6910 of November 26, 1934, as amended, or by Executive Order 6964 of February 5, 1935, as amended, and not otherwise withdrawn or reserved, or public lands within grazing district established under Section 1 of the Act of June 28, 1934 (48 Stat. 1269), as amended, and not otherwise withdrawn or reserved.

Public land laws: The body of laws which regulates the administration of public lands and the resources thereon.

-R-

Recreation and Public Purpose Act (R&PP): Act of June 14, 1926 (44 Stat. 741), as amended, that provides for the purchase or lease of public lands by a) federal, state, or local governmental units for any activity that serves the interest of the general public consistent with public policy or b) nonprofit organizations if the lands are to be used for recreation purposes in an established or proposed recreation project area.

Recreation sites: Relatively small tracts of land which have value for concentrated and intensive recreation use that usually requires construction and maintenance of public facilities.

Regulation: An administrative statement describing the requirements which an applicant or claimant must meet under particular public laws and describing the procedures to be followed in the execution of such laws. Many acts passed by Congress are not sufficiently detailed to spell out totally the minute requirements of the law. Regulations which are made known pursuant to law are considered by the courts to carry the same weight as the law they help interpret and spell out.

Rental: The amount paid periodically (usually annually) by the holder of a lease or right-of-way grant for the right to use land or resources for the purposes set out in the lease or grant.

Reservoir: A man-made, standing body of water whose water levels may be controlled.

Resource management plan (RMP): The Resource Management Plan provides the basic, general direction and guidance for BLM administered public lands in the planning area involved. This plan is a significant federal action therefore requires the preparation of an environmental impact statement. The EIS must analyze and document the environmental consequences and alternatives before a final decision is made on the resource management plan.

Revocation: Generally, an action which cancels a previous official act; specifically, an action that cancels a withdrawal. Revocation is usually done in conjunction with restoration, which opens the public lands. It need not necessarily "open" the lands to application/entry.

Right-of-way (ROW): A permit or easement which authorizes the use of public land for certain specified purposes, commonly for pipelines, roads, telephone lines, etc.; also, the lands covered by such an easement or permit. Does not grant an estate or any kind, only the right of use. May also include a site.

Riparian areas: The vegetation along the banks of rivers and streams and around springs, bogs, wet meadows, lakes, and ponds.

Riparian areas/habitat: Areas of land directly influenced by permanent water. Lakeshores and streambanks are typical riparian areas/habitat. Excluded are such sites as ephemeral streams or washes that do not exhibit the presence of vegetation dependent upon free water in the soil. Wetland and riparian areas are especially important because they are a critical source of biological diversity.

-S-

Salable minerals: Sand, gravel, stone, soil, and other common-variety mineral materials disposed of through sales at not less than their appraised price or through free-use permits.

Sawtimber: Logs of sufficient size and quality to be suitable for conversion into lumber or veneer.

Split estate: Mineral estate administered by the BLM which is under private, state of Wyoming lands, or lands administered by another federal agency. On split estate lands, the surface owner or managing agency controls the surface uses. However, BLM coordinates with them on mineral leasing and development. In a few cases, BLM administers the surface, but the minerals are owned by the state or a private entity.

State office: The first-level administrative unit of the BLM field organization. It comprises a geographic area consisting of one or more states.

Study area: Covers the planning area (all public lands and minerals in Campbell, Johnson, and Sheridan counties) but also considers the landtype units that are made up of natural landscape delineations which continues past the county lines.

-T-

Threatened species: Any animal or plant species likely to become endangered within the foreseeable future throughout all or a part of its range. Officially listed pursuant to Section 4 of the Endangered Species Act of 1973 (P.L. 93-205).

Trespass: Any occupancy, use, or development of the public lands or their resources of the United States without authority.

-U-

Unnecessary and undue degradation: Surface disturbance greater than that which would normally result when the same or a similar activity is being accomplished by a prudent person in a usual, customary, and proficient manner that takes into consideration the effects of the activity on other resources and land uses outside the area of activity.

Use authorization: Approval of a proposed land use for land or resources on the prescribed form or document designated for such use; a document showing permission to use land or the resources

thereon; a formalized grant pursuant to a request to use land or resources.

-V-

Visual resources: The composite of land, water, vegetation, animals, structures, and other visible features.

-W-

Watershed protection: Maintenance of the stability of soil and soil cover and the control of the natural flow of water. As defines as a multiple use, management of public lands for watershed protection involves the protection, regulated use, and development of any public lands in a manner to control runoff; to minimize soil erosion, siltation, and other destructive consequences of uncontrolled waterflows; and, to maintain and improve storage, yield quality, and quantity of surface and subsurface waters.

Wetlands: Permanently wet or intermittently flooded areas where the water table (fresh, saline, or brackish) is at, near, or above the soil surface for extended intervals, where hydric wet soil conditions are normally exhibited, and where water depths generally do not exceed two meters. Marshes, shallows, swamps, muskegs, lake bogs, and wet meadows are examples of wetlands.

Wilderness: An area of undeveloped federal land retaining its primeval character and influence, without permanent improvement or human habitation, that is protected and managed so as to preserve its natural conditions and that a) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; b) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; c) has at least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and, d) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Wildlife refuge: A reservation for the protection of wildlife. Lands withdrawn specifically for the management and protection of wildlife and which are administered by the U.S. Fish and Wildlife Service.

Withdrawal: An action which restricts the disposition of public lands and that holds them for specific public purposes; also, public lands which have been dedicated to public purposes (for example, recreation sites, office or warehouse sites, etc.).